



THE
HISTORY AND TOPOGRAPHY
OF THE
UNITED STATES OF AMERICA:

EDITED BY

JOHN HOWARD HINTON, A.M.,

ASSISTED BY SEVERAL LITERARY GENTLEMEN IN AMERICA
AND ENGLAND.

Illustrated with a Series of Views,

DRAWN ON THE SPOT AND ENGRAVED ON STEEL EXPRESSLY FOR THIS WORK.

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CONTENTS.

VOL. II.

TOPOGRAPHY OF THE UNITED STATES.

BOOK I.—PHYSICAL GEOGRAPHY.

Chapter	Page	Chapter	Page
I. General outline—Mountains, Rivers, &c.	1	II. Climate, Soil, &c.	22

BOOK II.—NATURAL HISTORY.

Chapter	Page	Chapter	Page
INTRODUCTORY OBSERVATIONS	44	III. Botany	105
I. Geology	45	IV. Zoology	131
II. Mineralogy	90		

BOOK III.—STATISTICS.

Chapter	Page	Chapter	Page
I. Agriculture	193	IV. Finances—Revenue, Expenditure, Debt	267
II. Manufactures	216	V. Population	300
III. Commerce and Navigation	239		

BOOK IV.—STATE OF SOCIETY.

Chapter	Page	Chapter	Page
I. Political institutions and Jurisprudence	310	III. Literature—Arts—Manners	393
II. Religion	360	IV. Indians—Negroes	424

BOOK V.—TOPOGRAPHY.

Chapter	Page	Chapter	Page
I. New England—New Hampshire—Vermont—Massachusetts—Rhode Island—Connecticut	458	XI. The Jesuits in California	600
II. New York—New Jersey—Pennsylvania	483	XII. Mineral wealth of California	613
III. Ohio—Indiana—Illinois—Missouri	505	XIII. The Great Basin	625
IV. Delaware—Maryland—District of Columbia—Virginia—Kentucky—North Carolina—Tennessee	521	XIV. Second great division of California	633
V. South Carolina—Georgia—Alabama—Mississippi—Louisiana	547	XV. Climate of California	643
VI. The Territories:—Arkansas—Florida—Michigan—Chippewayan Desert—Oregon	564	XVI. San Francisco	648
VII. Texas	572	XVII. The future constitution of California	657
VIII. Kennedy's description of Texas	578	XVIII. The valley of the Sacramento	664
IX. Hooton's character of Texas	583	XIX. The diggings	669
X. California	589	XX. Government of San Francisco	684
		XXI. Prices of labour and commodities	694
		XXII. Productiveness of the diggings	699
		XXIII. The approaches to the diggings	704
		XXIV. The aboriginal natives	714
		XXV. Unsettled state of things	731
		XXVI. Administration of justice	736
		XXVII. Statistics	753

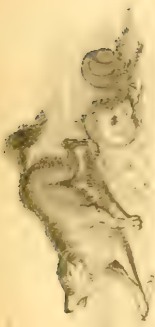
DIRECTIONS TO THE BINDER.

VOL. II.

	Page		Page
PORTRAIT OF WEBSTER, (frontispiece)		Timber raft on Lake Champlain . . .	483
Lake George	1	The Erie Canal	485
View of Newburgh	193	Palisade rocks on the Hudson river . . .	485
Barclay's Iron works, Ulston	216	Distant view of Skenectady	485
Capitol of the United States, Washington . . .	239	Albany	489
The President's House, Washington	267	Masonic Hall, Broadway, New York . . .	490
Arcade, Providence	267	St. Paul's, Broadway	490
Interior of the House of Representatives . . .	310	City Hall, New York	490
Interior of the Presbyterian Church, Savannah .	360	Military School, West Point, New York .	492
First Baptist Church at Providence	366	Ruins of Fort Ticonderoga	492
University of Virginia	393	Source of the Passaic	493
Dartmouth College, Hanover	464	Head waters of the Juniata	498
View near Conway, New Hampshire	465	United States Bank, Philadelphia	502
Harvard University	470	Deaf and Dumb Asylum, Philadelphia . .	502
Hancock House, Boston	474	Race Bridge, Fair Mount Waterworks . .	503
Ruins of the Old Fort	476	Upper Ferry Bridge	503
State House, Newport	478	Penitentiary	503
Yale College	480	Theatre, Walnut street, Philadelphia . .	504
Newhaven, Connecticut	481	Kenyon College, Ohio	505
Monte Video	481	Capitol of Virginia, Richmond	529
Distant view of the Falls of Niagara	482	Harpur's Ferry	534
Falls of the Caatskill	483	Capitol of North Carolina	543
View of the Caatskill Mountain House . . .	483	City Hall, Augusta	551



THE MOUNTAIN





TOPOGRAPHY

OF

THE UNITED STATES.

BOOK I.

PHYSICAL GEOGRAPHY.

CHAPTER I.

GENERAL OUTLINE.—MOUNTAINS, RIVERS, &c.

THE territory of the United States has undergone many changes subsequently to the formation of the republic; all of them, however, tending to its enlargement. At the close of the war which established their independence, it was the wish of many, both among the French and the English, to limit them to the possession of the Atlantic coast, and “to coop them up,” as some of their own writers have termed it, within the mountain chains which run nearly in a parallel direction with it, at a distance, for the most part, of several hundred miles. The endeavours of the American negotiators prevented such a result, and obtained the river Mississippi as the western boundary. The state, as thus constituted, was of great extent; but it was far from satisfying the wishes of this young nation. They first cast their eyes over the immense tract to the westward of the Mississippi, as far as the Pacific Ocean in one direction, and the Gulf of Mexico in another, a tract which was still claimed by France, and which was purchased by the United States, in the year 1803, for fifteen millions of dollars, or about three millions sterling. Not many years passed before the Floridas, which had been originally colonized by Spain, and were still under her feeble dominion, became an object of desire, and the cession of them was obtained with some difficulty, in the year 1821. The details connected

with the boundary line were settled by treaty at various periods, and with various powers; and a question relating to the British province of New Brunswick, which was referred to the decision of the king of the Netherlands, but his award when made the United States government refused to accept, for reasons they assigned; and in consequence it was of no effect. Further negotiations took place, and eventually the mission of Lord Ashburton brought the controversy to an amicable termination, when it was agreed by a treaty, signed August 9, 1842, that the boundary of the United States should in future be considered to take a course therein minutely described, and which will be copied in another chapter. Claims to territory lying north of the Chippewayan Mountains,* or, as they are commonly called, the "Rocky" or "Stony Mountains," were left unsatisfied during a series of years. The uncertainty which prevailed on this subject became at length the source of great discontent both in America and in England. In the former, high and menacing language was held, which was responded to in scornful terms by the journalists of Great Britain. To put an end to this state of things, which some parties on the other side of the water, including names of highly distinguished public men, thought it would greatly benefit the United States to prolong, the English government sent to America their ultimatum. It was promptly accepted without alteration by the President and senate, and a treaty† was speedily signed.

In its utmost reach, the territory of the United States extended from N. Lat. 25°, or 24° 27', the southern extremity of Florida, to N. Lat. 54° 40', the extreme north of the district of Oregon; and from the 67th to the 125th degree of west longitude from Greenwich.‡ It was bounded on the north by British America; on the west by the Pacific Ocean to the 42nd degree of latitude; on the south by the republic of Mexico (such as it was originally, after it became independent of Spain) and the Mexican Gulf, and on the east by the Atlantic Ocean. This might well be called an immense region. Its mean length from east to west was 2,500 miles, and its mean breadth from north to south 830. Its line of boundary extended, according to Darby, to 9,425 miles, of which 2,525 were sea-coast; and its area comprehended 2,257,374 square miles, exceeding by a small fraction one-twentieth part of the land surface of the earth.

The great features of this ample territory are few and simple. Contemplating its extent from east to west, we perceive on either side the Atlantic or Pacific Ocean

* The appellation which we shall generally give to what have commonly been called the *Rocky or Stony Mountains*.

† For the articles of this treaty establishing the future boundary, see Vol. I., p. 860.

‡ Reckoned from the meridian of Washington, the United States extend from 10° east to 48° west longitude.

respectively; on either side, also, are chains of mountains, on the east the Appalachian, on the west the Chippewayan Mountains, traversing the whole extent of the country, at a considerable distance from the coast, but in a direction nearly parallel with it. The effect of these mountain chains is to cut off a strip of land next the sea on either side, and to throw the whole of the intermediate country into the form of an immense inland valley. The territory of the United States was thus naturally divided into three great sections; that of the Atlantic Slope; that within the great central valley of North America; and, thirdly, a portion extending from the Chippewayan Mountains towards the Pacific Ocean.

The first of these sections we have called the Atlantic Slope, since for the most part it consists of lands gradually sloping from the Appalachian Mountains to the Atlantic Ocean. There are, however, two exceptions to this description; the one in the peninsula of Florida, which is flat and entirely separate from the mountain chains, and the other in the New England states, in which the mountains constitute the sea coast, without any intermediate lands. Neither in strictness can it be said that the mountain ridges constitute the western boundary of the Atlantic Slope itself; since the rivers, which of course indicate the descent of the country most correctly, do not uniformly rise in the mountains, but in many cases, especially in the north, rise in the table land beyond them, and burst through the mountains, in order to find their way to the Atlantic Ocean. The high ground, therefore, which really defines the western edge of this slope, must be traced by the river sources, and will be found to form an inflected line, ranging obliquely over the Appalachian system.

The ocean border of the Atlantic Slope is formed into three extensive bays. Having Capes Hatteras and Florida as the extremes of its chord, and the fine estuaries of St. John's, St. Mary's, Alatomaha, with many other rivers, pouring into it, stretches a bay swept by that great ocean river, the Gulf Stream. The coast of this bay is uniformly low and sandy, with small islands, extending generally parallel to the opposing shore of the continent. The rivers are comparatively shallow at or near their efflux into the ocean. If we consider the South-western Bay as commencing with the northern outlet of the Bahama Channel, the length of its chord will be about six hundred miles, with a depth from that chord to the mouth of the Alatomaha of about two hundred miles. The Gulf Stream in its passage north-east flows almost exactly along the chord of this bay, and forms in its inner curvature an immense whirlpool.

Cape Hatteras forms a most distinguishing land-mark on the oceanic border of the United States. Without an elevation much above the waves, which beat with untameable rage against its rocky front, this stormy promontory projects into the Atlantic Ocean, almost exactly mid-distance between Florida Point and Passamaquoddy. Sweeping inwards from this cape of tempests, and forming a section of a

very elongated ellipse, the Middle Bay of the United States extends about 550 miles to the eastern salient angle of Massachusetts, with a depth from its chord to New York harbour of 150 miles. The coast of the Middle Bay, like that of the South-west, is generally low and sandy; but its rivers and minor bays assume a very different character. All the rivers of the South-western Bay enter the Atlantic Ocean by narrow and very shallow outlets, neither of them, except the St. Mary's, admitting the entrance of large vessels; but with the Neuse and the Pamptico, entering into Pamptico Sound directly west from Cape Hatteras, commences a new order of rivers. Pamptico Sound is followed by that of Albemarle, receiving Roanoke and Chowan Rivers, which is again succeeded by that immense recipient, the Chesapeake Bay, and that again by the wide estuary of the Delaware, and next, the long and singular tide river or bay of the Hudson. At the efflux of the Hudson the Atlantic waves almost reach the base of the Appalachian mountains, but are again repelled by the sandy border of Long Island, which, through a distance of 116 miles, shelters an inland gulf, differing in character from the other sounds or bays on the Atlantic Slope only in having two outlets into the ocean. The outer coast of Long Island may therefore be regarded as the continuation of that of the Atlantic, and what is called Long Island Sound as the recipient of the Housatonic and Connecticut rivers. The beautiful and richly variegated bays of Narraganset and Buzzard close the fine indentings of the Middle Bay of the United States, which terminates with the sandy point of Malabar. Similarly to that of the South-west, the chord of the Middle Bay is very nearly the course of the Gulf Stream, though, in its advance to the north-east, that great current increases in width, but diminishes in rapidity.

Cape Cod, the eastern extremity of Massachusetts, is a promontory which constitutes another of those geographical limits on each side of which strong contrasts in natural phenomena present themselves. Here the coast curves rapidly inwards by an abrupt sweep to the south, thence west, gradually winding to the north-east, and finally to the south-east; enclosing on three sides a sheet of water in the form of a parallelogram, extending 200 by 180 miles. Into this north-eastern recipient are poured the rivers Charles, Merrimac, Piscataqua, Saco, Kennebeck, Penobscott, St. Croix or Passamaquoddy, St. John's, and it might be added the Bay of Fundy. The shores of Cape Cod are low and sandy, but with it terminates the low and alluvial coast of the United States. The high land now approaches the ocean, and the bays and rivers of north-east Massachusetts, and those of New Hampshire and Maine, open to the ocean between bold and swelling hills. The harbours of this section of the United States are numerous, deep, and spacious, and the two extremes of the Atlantic Slope present a complete contrast in scenery and in commercial facility.

Along the Gulf of Mexico, in a line of 1100 miles, scarcely a hill of any perceptible elevation rises, to break the dull monotony of the coast. The rivers enter their recipient by narrow and shallow channels, and even the mighty Mississippi on no one bar has thirteen feet water. The best harbours are bays into which no great rivers are discharged.

Looking inland from the Atlantic Ocean and the Gulf of Mexico, one vast and very gently rising plain seems emerging from the waters. At first almost an undeviating level, it is imperceptibly broken into hill and dale; the hills being first humble, but swelling into majesty as they approach the mountains. The long chains of the Appalachian system stretch from south-west to north-east. They are irregular, and plainly different from the hills, yet arranged, as a whole, with remarkable symmetry. They cross the line of the river sources, which singularly follows the deflections of the coast, at an angle of about 30 degrees. Touching the ocean in the New England states, they penetrate more and more deeply into the continent in their course to the south-westward. Taken under a comprehensive survey of its physiognomy, the Appalachian system comprises an undetermined number of chains, extending in collateral ranges; each chain is formed of ridges, which interlock with each other, and are frequently cut by the rivers; the ridges extend in most instances in the same direction with the chain which they contribute to form; the chains differ very materially in relative elevation and continuity, and the whole system is, with a few exceptions, in a remarkable manner devoid of peaks. No unequivocal appearance of volcanic eruption has been anywhere detected. The elevation of the Appalachian mountains is by no means considerable, and that of the table land giving origin to the Atlantic rivers may be said to be very trifling: the former never exceeds 6000 feet, and rarely approaches that elevation; while the latter, at its highest point, which is near the Gulf of Mexico, does not exceed 1800 feet, and in the northern states is less than 500. The chasms by which the rivers penetrate this mountain system are not the least remarkable of its features. The most extraordinary is that occupied by the River Hudson, by means of which the tide flows for 160 miles through the very heart of the mountains, and pierces the entire mass. This glen is continued to the St. Lawrence, the northern part of it being occupied by Lakes George and Champlain, and an elevation of only 140 feet dividing them from the tide level in the Hudson.

A rocky obstruction giving occasion to a fall, is a general, and almost a uniform occurrence in all considerable rivers which flow into the Atlantic between New York and the Mississippi. It is found that a line passing through these falls in succession would very nearly observe the deflections of the coast, and it is believed that they are all occasioned by a ledge of rock passing continuously through the whole country connected with the mountains. In most instances the tide advances up to this rocky

ledge, and within a short space above and below it the face of the country is strongly contrasted. Below the river falls the aspect becomes more and more monotonous, until the whole sinks to a level scarcely more broken, in many places, than that of an ocean in a calm. The rivers, except from the tides, are without current, or flow gently; and marshes, overflowed by the tides and land floods, are extensive near the coast. Above the falls all is different, and not only to the mountain bases, but in their expansive valleys, the hills meet the traveller's eye in considerable elevation, round, bold, and swelling. The rivers wind through vales, rich, variegated, and gently undulating, and now, under the influence of cultivation, smiling in all the gaiety of field, garden, orchard, and meadow. This fine hill tract spreads, if the expression may be used, round the Appalachian masses, and extends from the mouth of the St. Lawrence nearly to that of the Mississippi. It comprises the best peopled and best cultivated part of the north-eastern, middle, and southern states; and the largest and most wealthy cities of the republic have risen on its margin.

Let us now turn to the west, and examine the tract between the Chippewayan Mountains and the Pacific Ocean. The extent of coast here possessed by the United States is small in comparison with the Atlantic, being only about 600 miles; but the mountains are at a mean distance of 500 miles from the sea, giving to this region a much greater breadth than that of the Atlantic Slope. The Chippewayan Mountains appear to be altogether of a different character from the Appalachian. They are of a much greater altitude, some of them rising to the height of nearly 12,000 feet, and much more distinguished by conical peaks, and marks of volcanic agency. They are not broken through by the numerous rivers which rise in them, but constitute the dividing ridge of the respective waters. The rivers which flow towards the ocean do not, as on the eastern side, enter it in considerable numbers, indenting the coast with frequent estuaries; this being obstructed by a second, and as yet nameless, chain of hills running along the coast, and supposed to be a continuation of the range which constitutes the peninsula of California. The district of Oregon, therefore, (for such is its name,) is not properly a slope from the mountains to the sea, but a valley enclosed by two mountain ranges, the western being occasionally opened for the escape of the enclosed waters. Four principal rivers traverse this territory: the Multnomah, coming about 900 miles from the south; Lewis River, perhaps 1100 from the south-east; Clark's River, 1000 from the eastward; and the Columbia, an equal distance from the north. These rivers, among which it is difficult to determine the principal, unite at various distances from the ocean, and flow into it under the general name of the Columbia, N. Lat. 46°. In relative height, the surface of the Oregon basin falls from the plateau of the Chippewayan, at least 3,370 feet, to the level of the Pacific Ocean, and down this rapid descent the rivers are precipitated over numerous falls and cataracts. The tide

penetrates inland through the western system of mountains, following the windings of the stream upwards of one hundred miles, the bay at the mouth opening between Capes Adam on the south-east, and Disappointment on the north-west. The entrance, with about twenty-six feet water, runs easterly about twenty miles, and thence south-easterly to the mouth of Multnomah, sustaining thus far a depth of at least twenty feet. The face of the Oregon basin, as far as explored, is far from promising. Much of the country is broken by mountains, or stretches in naked plains, though some fine valleys, of confined extent, spread between the chains.

Between the Chippewayan and the Appalachian Mountains stretches an extensive tract, which, as a whole, may be called a valley, and, not improperly, the valley or basin of the Mississippi, as drained principally by that river and its confluent streams.

In looking at the upper or northern part of this region, we are immediately struck with the unparalleled series of lakes, or rather inland seas, which empty themselves into the Atlantic by the river St. Lawrence. It will be proper, in the first place, to glance at this interesting tract, which may be described as the St. Lawrence Basin. This great basin is naturally subdivided into three unequal parts, which may be with propriety designated upper, lower, and middle. The higher basin, the bottom of which is occupied by Lake Superior, lies in form of a rhomb; its length from north-east and south-west is 300 miles, and its breadth from south-east to north-west is nearly equal. Its area is about 90,000 square miles, one-third of which is contained in the lake. Into this reservoir are poured upwards of fifty rivers, none of which are of much importance. Though individually small, the quantity of water supplied collectively by the numerous confluent of Lake Superior must be very great, and it differs materially in different seasons of the year. The whole mass, composing a large river, is precipitated through the straits and down the falls of St. Mary. The surface of the lake is, by measurement, 641 feet above the Atlantic level. With a slight depression of twenty-three feet, the second or middle sub-basin of the St. Lawrence is spread below that of Lake Superior. The middle basin extends over a quadrangular area of at least 160,000 square miles, having the three great central lakes of Michigan, Huron, and Erie, as its lower valleys. Lake Michigan is an immense chasm, at least 900 feet deep, and 270 miles long, by about fifty mean width. The confluent of both this and Huron, like those of Superior, are inconsiderable individually, but very numerous; and when swelled by spring rains and melted snows, they exert a sensible influence on the relative height of their recipients. The sides of the lakes, and, indeed, the whole peninsula of Michigan, present little elevation. Lake Huron is an expanded triangular body of water, second in mass and extent only to Lake Superior. Receiving the vast discharge of both Superior and Michigan into its north-western angle, Huron protrudes the accumulated waters from its southern

extremity. A few detached islands lie scattered over the surface of Lake Superior, and a few of still more diminutive size checker the northern part of Michigan; but Huron is almost subdivided by a regular chain. A peninsula is projected into this lake from its south-east side, from which, in a direction south-west by west, and nearly parallel to the northern side of the lake, the Manatoulin islands follow entirely across the lake to about midway between the mouths of Michilimakinak and St. Mary's Straits. Between the Manatoulin group, and the northern shore of the lake extends a strait of about 200 miles in length, with a mean width of about thirty miles, also much checkered with islands. The residue of Huron towards the Michigan coast sinks to an almost unfathomable depth; nine hundred or a thousand feet would be a moderate estimate. The prodigious depth of the three upper Canadian lakes is a very interesting phenomenon in physical geography. Though the surface of the two lowest of the three, Michigan and Huron, is 618 feet above the Atlantic level, their bottoms are nearly 300 feet below it. It is therefore probable that some parts of Lakes Michigan or Huron are the deepest chasms on the continental surface of the earth. Lake Erie constitutes the most southern section of the middle sub-basin of the St. Lawrence. It is elevated 565½ feet above the Atlantic surface, and consequently lies 52½ feet below the level of Michigan and Huron. It is 230 miles long, from south-west to north-east. The form is elliptical, but much elongated, the breadth but little exceeding fifty miles at the widest, and not averaging more than thirty-five. The bottom of Lake Erie appears to be composed of an alluvial deposit of sand and mud, resting on a secondary sandstone, the depth seldom exceeding 200 feet, and in few places being so much. In the course of the river from Lake Erie occur the celebrated and truly magnificent falls of Niagara, by which it descends into the lower sub-basin of the St. Lawrence, and expands into Lake Ontario. This lake is 334 feet lower than Erie, and a very marked change is perceptible in the natural physiognomy of the country. This portion of the St. Lawrence basin is composed of two very unequal inclined planes. That of the right, or south-east, about 750 miles in length, does not exceed a mean width of sixty miles; but that of the north-west extends over 900 miles in length, with a mean width of nearly 270, with an area of 287,000 square miles. Lake Ontario is the lower stage of an enormous chasm on the earth's surface. The rivers on every side pour into its bosom by rocky and precipitous channels; and not one is navigable to any considerable distance without interruption from rapids, or, in most instances, from direct falls. The north-east part of Ontario is a congeries of islands, which are continued down the St. Lawrence about fifty miles. This part of the river is from ten to two miles wide, without much current, and known by the local name of The Thousand Islands. The number actually amounts, if every naked little rock is taken into the list, to upwards of 1500.

The peninsula of Prince Edward, and the small islets outside of Sackett's Harbour, are the higher eminences of this group, which, as extended into Lake Ontario, exceeds one hundred miles in length.

These magnificent lakes, which have justly been called the Canadian Sea, are deemed the most extensive repository of fresh-water upon the globe. They are so in consequence of their immense depth, however, and not of their surface, which is only 72,900 square miles, little more than half the superficial area of the Caspian Sea. The attempts that have been made to estimate the quantity of water contained in them are necessarily embarrassed with many difficulties. It appears, from the united testimony of every person who has made the necessary experiments, that Lakes Superior, Huron, and Michigan, are vast, and in some places unfathomable gulfs; that of all the great lakes, Erie is the most shallow, not exceeding a mean depth of 120 feet; and that Ontario varies from 450 to 534 feet. According to Darby, who takes a mean depth of 900 feet for the three upper lakes, the contents of the St. Lawrence basin may be computed at 1,547,011,792,360,000 cubic feet of water.^d The amount is certainly stupendous. It would form a cubic column of nearly twenty-two miles each side; or, if spread round the earth equally on each side of the equator, at a depth of one foot, it would nearly cover the torrid zone, and would actually envelope the whole earth to upwards of three inches in depth. In positive mass, it may be assumed on very solid grounds, that the St. Lawrence basin contains more than one-half of all the fresh water on this planet. The writer above quoted calculates the water discharged by the St. Lawrence at 1,672,704,000 cubic feet per hour.^e In making its way to the ocean, the St. Lawrence, like the Hudson, penetrates an extensive mountain mass, frequent rapids alternating with lake-like expansions, and finally enters the sea, after a course very nearly parallel to the Atlantic coast. In its progress it receives from the United States the waters of Lake George and Lake Champlain, two fine sheets of water, occupying the northern part of the great glen by means of which the Hudson pierces the mountain chains. The length of Lake Champlain is 109 miles, and its breadth varies from half a mile to twelve miles. Its depth, like that of the higher lakes of the St. Lawrence, is in many places prodigious. It is in reality the lower plateau of a deep vale.

As a basin of inland commerce, it may be truly asserted that the St. Lawrence stands alone on the globe. In its main channel the ocean tides penetrate 432 miles, or about midway between Quebec and Montreal. Above tide water to Ogdensburg, the channel is much impeded by shoals and rapids, but in no place actually impassable with vessels, either ascending or descending. Ships of the line of the first class are navigated to Quebec, and vessels of 600 tons to Montreal, upwards of 500 miles from the Gulf of St. Lawrence. Again passing from the river we merge

^d Darby, p. 231.

^e Ibid. p. 233.

into an inland sea. At the lower extremity of the first expanse of that central sea, Lake Ontario, two ports present their deep recesses to the most unwieldy vessels of war; these are Kingston and Sackett's Harbour. Beyond those spacious havens the harbours of the Canadian Sea are generally shallow, but no region of the earth presents such varied, contrasted, and peculiar scenery. Even the majestic Niagara is but the principal object of interest on this expanded canvass. Above the falls of Niagara it is generally only in the rivers that safe anchorage can be found, and in many parts, for great distances, no kind of shelter is offered by the lake shores. Round all the lakes ridges of sand and shingle are traced, which indicate various subsidences of their level, to the depth, in Lake Ontario, in which the occurrence is most strongly marked, of 160 feet.

In the remainder of the central valley of the United States, of which the St. Lawrence basin constitutes, to a great extent, the northern boundary, it is a prominent and obvious feature that the whole of it is drained by one set or system of rivers. Many of them come from very remote distances, and are themselves of great magnitude; but instead of finding their own way to the sea, they mingle their waters in a common receptacle, and enter the Gulf of Mexico by the mouths of the Mississippi. We have already seen that no considerable rivers run into the lakes of the St. Lawrence; and this may prepare us for the fact, which is obvious upon the maps, that many of the streams which pour themselves into the Mississippi arise very near to the lakes themselves. The Ohio, for example, rises within five miles of Lake Erie, and there are many similar cases. But we should scarcely have expected that rivers which have a course of 3000 miles to run, would rise from grounds elevated only a few hundred feet above the level of the ocean. Yet such is the remarkable fact. No mountains, nor grounds of considerable elevation, divide the tributaries of the lakes from those of the Mississippi valley. On the contrary, the waters of Lake Michigan are so nearly on a level with those of the River Illinois, which flows into the Mississippi, that, in flood seasons, their waters not only mingle, but boats of seventy or eighty tons are navigated from the one into the other. The preceding remark may be farther extended, and may be applied to the immense inflected line, of upwards of 2000 miles, from the sources of the Susquehanna, Genessee, and Allegany, to those of Saskasawin of Hudson's Bay, Maria's River of Missouri, and Clark's River of Columbia. The latter line may be considered as that by which the slope of the Mississippi basin declines from that of the St. Lawrence and Hudson basins. It is entirely destitute of mountains. We may, therefore, consider the basin of the Mississippi as the southern declination of the great central valley of North America; and as limited on the east by the table land, and not by the actual chains, of the Appalachian system, and on the west, by the chains of the Chippewayan.

This central valley may be divided into four parts. First, the portion between the lakes and the Appalachian Mountains; this is traversed by the Ohio, and its numerous confluent. Second, the portion between the lakes and the Missouri; this is traversed by the Mississippi proper. Third, the portion occupied by the Missouri itself, including the course of the river Platte. Fourth, the valley of the Lower Mississippi, with the Arkansas and Red rivers.

The Ohio valley is subdivided by the river into two unequal sections, leaving on the right or N. W. side, 80,000, and on the left or S. E. side, 116,000 square miles. The Ohio River flows in a deep ravine, and forms a common recipient for the water poured down from both slopes. The length of the ravine, in a direct line from the city of Pittsburgh to the Mississippi River, is 548 miles, but by the meanders of the stream 948 miles. "The hills," says Mr. A. Bourne,^f "are generally found near rivers or large creeks, and parallel to them on each side, having between them the alluvial valley, through which the stream meanders, usually near the middle, but sometimes washing the foot of either hill. Perhaps the best idea of the topography of this region may be obtained by conceiving it to be one vast elevated plain, near the centre of which the streams rise, and in their course wearing down a bed or valley, whose depth is in proportion to their size, or the solidity of the earth over which they flow. So that our hills, with some few exceptions, are nothing more or less than cliffs or banks, made by the action of the streams: and although these cliffs or banks on the rivers or larger creeks, approach the size of mountains, yet their tops are generally level, like the remains of the ancient plain." The confluent of the Ohio which flow from the Appalachian Mountains are, from their sources, precipitous torrents, and pursue their courses in deep channels; whilst those streams which derive their fountains from the north-western slope, although sluggish towards their sources, gain velocity as they approach the Ohio. In its natural state, the valley of Ohio was for the most part covered with a dense forest, but the central plain presents an exception. As far east as the sources of the Muskingum commenced open savannahs, covered with grass and devoid of timber. Like the plain itself, those savannahs expand to the westward, and on the Illinois open into immense natural meadows, generally known under the denomination of prairies. The Ohio, from Pittsburgh to the Mississippi, a course of nearly a thousand miles, falls only about 400 feet, or about five inches in a mile. This river, and its principal branch, the Allegany, are in a striking manner gentle as respects current; and from Hamilton, in the state of New York, to the Mississippi, over a distance of 1158 miles, following the streams, at a moderately high flood it meets, excepting the rapids at Louisville, with not a single serious natural impediment. The Monongahela,

^f Darby, p. 298.

more impetuous than the Allegany, is yet navigable, without falls or rapids, by both branches, far into Virginia. On the north-west side of the valley the rivers are extremely rapid. Rising on a table land from 300 to 1000 feet above their mouths, and in no instance having a direct course of 300 miles, the streams, though falling gradually, are almost torrents. The Big Beaver, Muskingum, and Hocking, have direct falls; but the Sciota, Miami, and Wabash, though rapid, have neither falls nor cataracts to impede navigation.

The Ohio valley may be regarded as a great plain inclining from the Appalachian system to the N.W., obliquely and deeply cut by the Ohio and its numerous confluent, into chasms from an elevation of 460 feet to nearly the level of the streams. In the higher part of the valley, when on the rivers, the banks, with the exception of comparatively narrow flats near the margins, rise by bold acclivities which have a mountainous aspect. This boldness of outline imperceptibly softens in descending the Ohio, and on approaching the Mississippi, an extent of level woodland bounds the horizon. Ascending the rivers of the south-east slope, the scenery becomes more and more rugged, until it terminates in the ridges of the Appalachian chains: on the contrary, if the rivers of the north-west slope are followed, we find the landscape broken and varied near the Ohio, but around their sources flat and monotonous. In our survey of the Ohio valley, we have reached the verge of those wide spread prairies, savannahs, or steppes, which, more westward, dilate until forests dwindle to mere clumps or narrow lines of trees along the streams, while in the intermediate spaces extend grassy wastes, which seem to lengthen as the traveller speeds over their tedious surface. In its natural state, an almost unbroken forest spreads over and around the Appalachian system of mountains, reaching to the Atlantic Ocean, Gulf of Mexico, and stretching over the St. Lawrence towards Hudson's Bay, and westward beyond the Mississippi and Ohio. This is, perhaps, the most extensive continuous forest which exists on earth. The human hand has, indeed, marked its surface by opening a few spots, but the far greater part remains the empire of trees. Beyond this wooded region, to the west, follows another, far more extensive, but of very different character. The second or grassy tract is not separated from the wooded by any definite limit; in passing from one to the other, the features are so blended as to render the transition imperceptible. In general, the prairie region is less hilly, mountainous, or rocky than that of the forest; but exceptions in both cases are frequent. Plains of great extent do exist in the latter, while mountains of great elevation, mass, and extent, checker the former.

The Mississippi rises in Turtle Lake and Lake Lebeish, about N. Lat. 47° 47', and pursues a course of about 1200 miles, previously to its junction with the Missouri. The Ohio, in its north-eastern extreme sources, we have found issuing

from an elevated, mountainous, and highly variegated country; whilst those of the Mississippi, on the contrary, ooze from an immense marshy plain, in great part devoid of timber. The space intervening between Lake Superior and the great inflection of the Missouri and the Mandan villages, rises by a rapid acclivity to nearly 700 feet above the lake, and thence spreads towards the Missouri in a level, with a very gentle descent. In this plain the Mississippi rises. It is a circumstance peculiar to this river, that the physiognomy of nature around its head bears so strong resemblance to that of its estuary. A difference of nineteen degrees of latitude precludes much similarity in vegetable or stationary animal production; but according to Mr. Schoolcraft, who visited the sources in the month of July, the migratory water fowl found there at that time of the year are very nearly the same which flock in countless millions over the delta, in December, January, February, and March. "It is also deserving of remark," says Mr. Schoolcraft, "that its sources lie in a region of almost continual winter, while it enters the ocean under the latitude of perpetual verdure."

On a view of the particular valley of the Mississippi, its general monotony first strikes the eye. No chains or groups of mountains, or elevated ranges of hills, rise to vary the perspective. Over so wide a space as 180,000 square miles some solitary elevations indeed exist, which, for want of contrast, are dignified by the name of mountains; but few continuous tracts of equal extent afford so little diversity of surface. The upper part of the Mississippi itself is traversed by numerous falls of inconsiderable perpendicular descent; many places along the banks are high, broken, and precipitous; but taken as a whole, there is a sameness strikingly in contrast with the ever varying landscapes along the higher part of the Ohio, and upon the Appalachian streams.

The Missouri rises in a part of the great Chippewayan mountain system. As viewed from the course of this river, the mountains rise abruptly out of the plains, which lie extended at their base, and tower into peaks of great height, which renders them visible at the distance of more than one hundred miles eastward from their base. They consist of ridges, knobs, and peaks, variously disposed, among which are interspersed many broad and fertile valleys. The more elevated parts of the mountains are covered with perpetual snows, which contribute to give them a luminous and, at a great distance, even a brilliant appearance, whence they have derived the name of Shining Mountains. They are clad in a scattering growth of scrubby pines, oak, cedar, and furze, and exhibit a very rugged and broken aspect. The Missouri rises far within the bosom of the mountains, and is divided by a single ridge from the waters of the Columbia, which terminate in the Pacific Ocean. In its early course it flows through small but beautiful and fertile valleys, deeply embosomed amidst the surrounding heights, and forms a variety of islands in its progress, till at length it

issues from these verdant recesses by a rocky pass, which has not unaptly been called by Lewis and Clarke, the Gates of the Rocky Mountains. "The rocks,"^ε say these enterprising travellers, "approach the river on both sides, forming a most sublime and extraordinary spectacle. For five and three-quarter miles these rocks rise perpendicularly from the water's edge to the height of nearly 1200 feet. Nothing can be imagined more tremendous than the frowning darkness of these rocks, which project over the river and menace us with destruction. The river, of three hundred and fifty yards in width, seems to have forced its channel down this solid mass; but so reluctantly has it given way, that, during the whole distance, the water is very deep, even at the edges, and for the first three miles there is not a spot, except one of a few yards, in which a man could stand between the water and the towering perpendicular of the mountain; the convulsion of the passage must have been terrible, since at its outlet there are vast columns of rock torn from the mountain, which are strewn on both sides of the river, the trophies as it were of the victory. Several fine springs burst out from the chasms of the rock, and contribute to increase the river, which has now a strong current, but very fortunately we were able to overcome it with our oars, since it would be impossible to use either the cord or the pole. We were obliged to go on some time after dark, not being able to find a spot large enough to encamp on; but at length, about two miles above a small island in the middle of the river, we met with a spot on the left side, where we procured plenty of lightwood and pitchpine. This extraordinary range of rocks we called the Gates of the Rocky Mountains." The stream called by preeminence Missouri, is not the main branch, if the documents hitherto published are correct; the Yellow Stone River appears to be longer than its rival above their junction, and to receive larger and longer confluent. It rises in the Chippewayan mountains, more to the southward. At the junction of the Yellow Stone and the Missouri, the river, estimated by either branch, has flowed upwards of a thousand miles, and it is little if any less, either in width or depth, than it is at its junction with the Mississippi. A few miles below the influx of the Yellow Stone, the Missouri has reached its utmost northern bend, in N. Lat. 48° 20'; and curves by a regular sweep of two hundred miles to the Mandan villages. The Platte and Kansas are two great confluent of the Missouri rising in the same mountains, and flowing generally to the eastward, the former 700, and the latter 600 miles. The Platte derives its name from the circumstance of its being broad and shoal; its average width being about twelve hundred yards, exclusive of the islands it embosoms; and its depth, in a moderate stage of water, so inconsiderable, that it is fordable almost every where. The river in several places expands to the width of many miles, embosoming numerous islands,

^ε Lewis and Clarke's Travels up the Missouri, chap. xii.

some of which are broad and considerably extensive, and all of them covered with a growth of cotton wood and willows. These are the only woodlands that make their appearance along the river, and in travelling westward these become less numerous and extensive, till at length they entirely disappear. The Platte is seldom navigable, except for skin canoes, requiring but a small depth of water, and for these only when a freshet prevails in the river. No attempts have ever been made to ascend the river in canoes for any great distance, the prevalence of shoals, and the rapidity of the current, discouraging such an undertaking. The bed of the Platte is seldom depressed more than six or eight feet below the surface of the bottoms, and in many places even less, and spreads to such a width that the highest floods pass off without inundating the bottoms, except in their lowest parts, the rise of the water on such occasions being no more than five or six feet. The Kansas is navigable only in high freshets for boats of burden, and on such occasions for not more than one hundred and fifty or two hundred miles, the navigation being obstructed by shoals. The character of this river and its several branches is similar to that of the Platte and its tributaries. After a direct course of 1870 miles, and a meandering one of 3000, the Missouri falls into the Mississippi. The greatest length of the valley of the Missouri, from the mouth of that stream to the head of Maria's River, is 1200 miles; its greatest breadth, from the sources of the Platte to a short distance south-east from the Mandan villages, is 700 miles; with an area of 523,000 square miles, equal to 334,000,000 of statute acres. Three remarkable features exist in it; first, the turbid character of the water; second, the very unequal volumes of the right and left confluent; and third, the immense excess of the open prairies over the river lines of forest. In the direction of the western rivers, the inclined plain of the Missouri extends 800 miles from the Chippewayan mountains, and rather more than that distance from south to north, from the southern branches of the Kansas to the extreme heads of the northern confluent of the valley. Ascending from the lower verge of this widely extended plain, wood becomes more and more scarce, until one naked surface spreads on all sides. Even the ridges and chains of the mountains partake of these traits of desolation. The traveller in those parts who has read the descriptions of central Asia by Tooke or Pallas will feel, on the higher branches of the Missouri, a resemblance at once striking and appalling. He will regret how much of the earth's surface is doomed to irremediable silence, and, if near the Chippewayan heights in winter, he will acknowledge that the utmost intensity of frost in Siberia and Mongolia has its full counterpart in North America, on similar if not on lower latitudes. But of all the characteristics which distinguish the Missouri and its confluent, the few direct falls, or even rapids, is certainly the most remarkable. Between Dearborne's and Maria's rivers the stream leaves the Chippewayan range by rolling over ledges of rock for a distance of eighteen miles, after which this overwhelming

mass of water, though every where flowing with great rapidity, nowhere swells into a lake, or rolls over a single cataract in a distance of at least 3500 miles to the Gulf of Mexico. If therefore the Amazon is excepted, the Missouri and its continuation, the Mississippi, afford the most extended uninterrupted line of river navigation which has ever been discovered.

After being joined by the Missouri, the Mississippi makes a direct course of 820, or an indirect course of 1265 miles to the Gulf of Mexico. In no circumstance is the physical geography of the United States more remarkable, than in the extreme inequality of the two opposing planes down which are poured the confluent of the Mississippi below the influx of the Ohio. The western inclined plane, falling from the Chippewayan mountains, sweeps over upwards of eight hundred miles, whilst the eastern, sloping from the Appalachian, has not a mean width of one hundred miles. The rivers which drain the two slopes are, in respective length, proportionate to the extent of their planes of descent. Whilst Red River exceeds a comparative course of 800 miles, the Arkansas of 1000, and White River of 400, the longest stream from the opposite slope falls short of 200 miles. The alluvion brought down by such volumes of water as those of White, Arkansas, and Red rivers, explains satisfactorily the reason why the Mississippi infringes so often on the eastern, and nowhere below the Ohio touches the western bluffs. The lower valley of the Mississippi is the most variegated section of the United States. Every form of landscape, every trait of natural physiognomy, and an exhaustless quantity, with an illimitable specific diversity, of vegetable and metallic productions, are found upon this extensive region. It is flanked on the east by a dense forest, and on the west by the naked ridges and spines of the Chippewayan mountains; while the deep entangled woods of the Mississippi stand in striking relief against the expansive prairies of the Arkansas and Red rivers.

The principal confluent of the lower Mississippi is the Arkansas, which is longer, and drains more surface, than either the Mississippi proper, the Platte, or the Ohio. It rises in the Chippewayan Mountains, and has a direct course of 1400, and an indirect course of 2000 miles. This great river is navigable about 600 miles; but issuing from an elevated and mountainous region, its main volume and numerous branches are much impeded by shoals and cataracts; below the mouth of Canadian Fork, however, though passing through a minor chain of mountains, the Arkansas rolls its stream of about 600 yards wide, with great depth, to the Mississippi. Next in volume and length of course to the Arkansas is Red River, which, like its rival, flows from hidden fountains in the mountains of Santa Fe. By a direct course this stream flows over about 1000, but by its meanders it exceeds in length 1500 miles. Both the Arkansas and Red rivers have their periodical annual swell, and enter their recipient in seasons of flood with immense volumes, which

contribute largely to that enormous mass of water which every spring flows over Louisiana into the Gulf of Mexico. Impregnated by saline particles, and coloured by ochreous earth, the waters of these two rivers are at once brackish and nauseous to the taste, particularly near their mouths; that of Red River is so much so, that at Nachitoches, at low water, it cannot be used for culinary purposes.

The Mississippi makes its way to the sea through a tract of low country, consisting of forest, of prairie, and of marsh land. By its immense deposits of earthy matter, it has formed in the course of ages an extensive delta, distinguished from those of all other rivers by the protrusion of a cape, or head-land, into the sea. This peculiarity arises from its having but one principal course through the delta itself, so that the debris continually brought down is always driven forward in one direction. The cape projects at present thirty miles into the Mexican Gulf, and has extended itself twelve or thirteen miles since the colonization of the country. The river has three main outlets, all of them shallow; the two deepest of them have only twelve feet water on the bar at ordinary tides. The shallow water, however, is only on the bar. At New Orleans the depth of the Mississippi is one hundred and sixty-eight feet.

Having taken this general view of the Mississippi, we may for a moment compare it with the other great river with which it is so nearly connected. Rising from the same vast table land, and having such an extended line of interlocking sources, it is worthy of remark, that no two rivers on earth so essentially differ in their general features, as do the Mississippi and the St. Lawrence. The former is turbid in many places, even to muddiness; the waters of the latter, and of its lakes, are highly limpid. The channel of one river is checkered with innumerable lakes, some of which are of immense extent, whilst in the other no lakes of any note occur. Annually the Mississippi swells and overleaps its bed, inundating the adjacent shores; a casual rise of three feet once or twice in any given fifty years is considered a great elevation of the waters of the St. Lawrence. The Mississippi, flowing from north to south, passes through a great variety of climes, whilst its rival, winding from its source in a south-east direction to nearly N. Lat. 41°, turns gradually to the north-east, and again flows into its original climate of ice and snow. The Mississippi, before its final discharge into the Gulf of Mexico, divides itself into a number of channels, having their separate egress; the St. Lawrence imperceptibly expands to a wide bay, which ultimately opens into the gulf of the same name. The banks of the Mississippi, particularly near the mouth, present a level scarcely rising above the highest spring floods of that stream; those of the St. Lawrence generally slope from the river margin by an elegant acclivity, and when cleared from timber, have the aspect of a most delightful basin. Much of the surface within the Mississippi valley is occupied by open grassy plains, where few shrubs or trees break the monotony of the landscape;

nearly the whole of the St. Lawrence basin, in a state of nature, is covered with a continuous and almost impervious forest. Such are the leading and contrasted features of these two great North American rivers.

The spring floods to which the Mississippi is subject are remarkable for their long and steady continuance; a circumstance highly favourable to inland navigation. Considering the immense extent and the incalculable number of the rivers implicated, this fact has been considered anomalous; but without just cause. It is obvious, on a glance at the different regions from whence the waters are drawn, that the rivers must be high at different periods of the year. It is evident also, that, in the breaking up of winter, the water of the same valley is drawn from its recesses gradually; more particularly when, as in the case of the Mississippi, the river flows from the poles towards the equator. It is a general fact that such rivers are never so destructive in their inundations as those whose courses are in a different direction. Red River, the most southern, is also the first of the great branches of the Mississippi which discharges its waters on the delta, and it is followed by the Arkansas. It is remarkable that the Ohio and the Arkansas, remote as they are from each other, are the two streams of the whole basin which most uniformly emit their flood at the same time; and they are the streams, which, with some addition from Mississippi proper, give the highest and most durable flood to the delta. The Mississippi proper flowing so nearly north and south, spring thaws in it commence near the mouth, and retrograde slowly towards the source, and consequently the discharge is gradual; similar remarks apply to the Ohio and the Arkansas; so that the duration of the flood season is thus lengthened, while the quantity of water in a given time is moderated. In common years, Red River flows out in February or early in March, but occasionally it continues high from December until late in the ensuing spring; the great flood from the Arkansas, the Ohio, and the Mississippi proper, commences generally early in March, and attains its full height about the middle of June; abating from the latter period, it has greatly subsided by the end of July or the beginning of August, when the retarded overflow of the Missouri arrives to complete the annual inundation.

The importance of this inundation may be estimated from the following view of the navigable character of the principal rivers in their ordinary state. The navigation of the Mississippi has fewer obstructions between Natches and its mouth than above this part of the river, having so great a depth of water that mags, bars, &c. are sunk below the reach of any kind of water-craft employed upon it. From Natches upward to its confluence with the Missouri, the river presents impediments that become more and more numerous and difficult to pass; although still the main channel, though intricate in many places, affords a sufficient depth of water in all stages for boats of five or six feet draft to ascend to the mouth of the Ohio. From this point to the Missouri, a distance of more than two hundred and

twenty miles, the navigation is partially obstructed, during a very low state of the water, by shoals, so that it is navigable only for boats of moderate burthen, requiring but about three feet of water. At the distance of about thirty miles above the mouth of the Ohio there are two rocky bars extending across the Mississippi, called the Big and Little Chains, which, in the deepest channel across them, afford no more than five or six feet of water when the river is low, and occasion a great rapidity of current. The obstructions to the navigation of the Missouri, although they are of the same character with those of the Mississippi, are far more numerous and formidable than those of the latter; the channel is rendered exceedingly intricate by means of sand-bars and islands, and the navigation in many places is very hazardous on account of the multiplicity of rafts, mags, sand-bars, &c. with which the channel is beset. No part of the river is exempt from these obstructions for any considerable distance, particularly when the water is low. During the flood there is a sufficient depth to admit boats of almost any burthen; but during the residue of the year it can hardly be called navigable, except for boats drawing no more than twenty-five or thirty inches. The obstructions to the navigation of the Ohio are sand-bars, some few rafts and mags, and rapids, to which the intricacy of its channel in several places may be added. During a middle and high state of water the obstructions entirely disappear, and an accelerated current is the only difficulty to be encountered; but during the rest of the year, when there is no freshet, boats of inconsiderable burthen meet with numerous obstructions in their progress from the lowness of the water, and in many places no channel can be found of sufficient depth to admit their passage. At the distance of about seventeen miles from its mouth is the first serious obstruction to its navigation, consisting of a lime-stone bar extending across the river, denominated the Big Chain, and three miles above is another of a similar description. The range of rocks, of which these appear to be a portion, seems to extend across the point of land situated between the Ohio and the Mississippi, presenting itself again on the latter, at the Big and Little Chains before mentioned. The falls of the Ohio at Louisville are impassable for boats of burthen, except in the higher states of the water. Le Turt's Falls, and numerous other rapids, denominated ripples, are also impassable for boats of heavy burthen, when the river is at its lowest stages. In this state the river is fordable in numberless places.^a

Connected with the general inundation is the very unfounded, but general opinion, that the Mississippi river can, and does occasionally, change its bed, and that it flows on a comparative ridge. On the contrary, the bed of the Mississippi, like that of all other rivers, is the lowest depression of the country through which it flows. As high as the efflux of La Fourche the stream is one hundred and thirty feet

^a Report of Major Leng, in James's Account of the Expedition to the Rocky Mountains, vol. iii.

deep at low water, and, in a similar state, it is seventy-five or eighty at Natchez. At New Orleans the depth exceeds 160 feet. From the immediate margin of this great mass of water, indeed, the country falls by a very slow depression; but the bottom of the deepest lakes, Pontchartrain, Maurepas, Quacha, Chetimaches, and others, varies only from four or five to eighteen or twenty feet below the general level of the delta, leaving the bottom of the Mississippi upwards of 100 feet below that of any lake of Louisiana, except those formed by the river itself, in the following manner: The sweeping bends of the Mississippi cause the volume of its water to recurve upon itself, till by the double abrasion on its opposite side, a neck or isthmus is cut through, and thus far a new channel is formed, the ancient bend assuming the aspect of a lake, though still attesting its origin by its great depth, as well as its proximity and perfect resemblance to the bends of the parent stream. Of the latter species of lakes, Fausse Riviere, Homochitta, and Yazoo, were produced within the range of history; those of Concordia, St. John's, St. Joseph's, Providence, and Grand lake, were found in their existing state when Louisiana was colonized by the French. With the exceptions stated, the Mississippi can no more recede from its channel than could the Hudson, the Delaware, or the Susquehannah; the barriers which confine the latter to their channels are more prominent, but not less irremovable or impenetrable, than is the extended alluvion which spreads from the former.

Though we have described the whole of the Mississippi basin as a valley, with reference to the two mountain chains by which it is enclosed, there are comprehended in it not only undulations of hilly country, but two distinct, though subordinate, mountain ranges. The most considerable of these is called the Maserne, or Ozark Mountains. These mountains extend from the sources of the Rio Colorado of Texas on the south-west, to the confluence of the Mississippi and the Missouri on the north-east, and are continued in a low range from this point towards Lake Superior. They are widest in the south-west, and in that quarter they mingle with some low tracts, extending from near the Gulf of Mexico to the base of the eastern extremity of the Rocky Mountains. This range consists of low ridges, irregular in direction, rarely rising to an elevation of more than 1500 or 2000 feet. The mountainous country commences immediately west of the Mississippi bottoms, and extends westwardly about 400 miles. This section, with the exception of the river bottoms, and tracts of valley land scattered in various directions throughout the whole, is extremely hilly, broken, and mountainous, the hills and mountains rising from five to 1500 feet above the water-level of the country in which they are situated. They are exceedingly numerous, and are divided into a multiplicity of knobs and peaks, having rounded summits, and presenting perpendicular cliffs and abrupt precipices of sandstone. Their surfaces generally are covered with rocks of this description, or flinty fragments strewed in profusion upon them. The growth upon

them is, almost exclusively, pitch pine, cedar, scrubby oaks, hickory, haw, and bramble; the poverty of the soil in some instances, and the scarcity of it in others, excluding the more luxuriant vegetable productions common to the more level country in their vicinity. These mountains are penetrated by White and Red Rivers and the Arkansas. The other range is called the Black Mountains, or rather hills, and is so placed as to occupy the northern bend of the Missouri, between that river and the Yellow Stone. These are of still lower elevation than the Ozarks, and of a different structure, though likewise perfectly distinct from the general character of the valley. They appear to extend from the bend of the Missouri to the river Platte, upwards of 400 miles, by about seventy or eighty in breadth. This hilly region is traversed by the Little Missouri river, running north-east into the Missouri at its northern bend, while it furnishes all the western confluent to that vast recipient, after its turn to the southward, so low as the River Platte.

CHAPTER II.

CLIMATE, SOIL, &c

THE United States are most desirably situated. They are placed in the northern temperate zone, and occupy just that portion of it which is most likely to yield a salubrious climate with a fertile soil. Happily removed alike from the consuming heats of the torrid zone, and the perpetual frosts of the polar regions, the republic is nevertheless of such an extent as almost to touch upon them both. The climate of a country stretching through nearly five and twenty degrees of latitude, cannot but be of great diversity. In this respect, it has been divided into five regions, which may be denominated the *very cold*, the *cold*, the *temperate*, the *warm*, and the *hot*.^a

1. The *very cold*, in the north-east, may be defined by running a line from St. Regis, on the St. Lawrence, along the high lands in the state of New York to Tioga Point, in Pennsylvania; thence to Stony Point, on Hudson's river, and thence to Cape Cod, in Massachusetts. In this region the winters commence in November and end in April, and the summers commence in June and end in August. Both heat and cold go to great extremes, but the country is generally healthy. To the westward, north of a line drawn from the southern extremity of Lake Huron to the Rocky Mountains, the climate is also the very cold, and the northern extremity is in winter excessively so. In this region the heat and cold go to still greater extremes than to the eastward. The highest, lowest, and mean heat for each month, at different situations, will be shown by the following table:

METEOROLOGICAL TABLE.

	Portsmouth, N.H. 43 5 N. Lat. 6 16 E. Lon. ^b			Boston, Mass. 42 22 N. Lat. 5 48 E. Lon.			Mackinaw. 45 55 N. Lat. 7 30 W. Lon.			St. Peter's. 45 0 N. Lat. 15 30 W. Lon.		
1850.	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean
January	35	9	21	35	5	23	..	..	..	29	-30 ^c	0
February	43	3	30	50	1	29	..	..	..	46	-14	21
March	62	12	34	74	4	34	..	..	..	68	10	46
April	64	24	42	75	27	48	..	..	..	85	10	39
May	72	35	55	78	51	56	..	..	..	82	36	61
June	94	52	67	98	50	67	..	..	..	82	52	71
July	89	63	67	87	57	67	..	..	..	93	54	69
August	92	55	73	73	53	62	..	..	..	92	53	68
September	88	40	60	75	43	58	..	..	..	89	30	62
October	65	32	49	58	33	48	70	28	45	..	..	..
November	49	18	37	54	15	39	50	10	32	56	-7	31
December	33	12	25	42	8	27	34	4	21	32	-20	11
Mean of the year	45° 8'			47° 3'			incomplete			43° 9'		

^a Melish's Description of the United States.^b The longitude in these tables is reckoned from the meridian of Washington.^c - signifies below zero.

The range of the thermometer in this region is not less than 128° , viz. from 30° below zero to 98° above it, including great extremes both of heat and cold. The most intense cold and the lowest average temperature are at St. Peter's, the point most remote from the ocean and from the principal lakes.

2. The *cold* region comprehends a great and very unequal range of country. In the eastern division it extends from the foregoing line to Lakes Ontario and Erie westward; and south on the Atlantic coast, to about Cape Henlopen on the Delaware. Thence a line may be protracted to Washington, and along by the foot of the first mountains in Virginia to about Morgantown, North Carolina; thence through the mountains to Kenaway River, and north-east on the west side of the mountains to the upper part of Chesnut Ridge, in Pennsylvania. In the westward, the southern boundary of the very cold region before mentioned may be assumed as the northern boundary of the cold; and the southern boundary of the cold may be protracted westward from the head of Chesnut Ridge to the high lands dividing the waters falling into the Ohio from those falling into the St. Lawrence, and along in a northern and western direction, crossing the Mississippi about thirty miles below Prairie des Chiens, thence south and west crossing the Missouri about thirty miles below the Platte River; thence southward to the west of the Great Osage village, and then eastward to the Arkansas River, above the Hot Springs. In this division the winters commence in December and end in March, and the heat of summer commences in May and ends in September. The heat and cold here also go to great extremes; but the weather is very changeable, particularly in winter, so that neither severe heat nor severe cold lasts long at a time. The country in this division is also generally healthy.

METEOROLOGICAL TABLE.

	New York. 40 43 N. Lat. 3 10 E. Lon.			Philadelphia. 39 57 N. Lat. 1 52 E. Lon.			Washington. 38 52 N. Lat.			Sackett's Har. 43 55 N. Lat. 1 0 E. Lon.			Detroit. 42 30 N. Lat. 5 48 W. Lon.			Prairie des Chiens. 42 36 N. Lat. 14 38 W. Lon.			Council Bluffs 41 31 N. Lat. 19 45 W. Lon.		
1820.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.
January.	48	9	28	48	6	26	42	14	32	30	12	23	44	4	24	..	..	..	40	-22	9
February.	42	0	34	64	6	37	66	16	48	57	0	32	42	2	17	..	..	..	71	-8	30
March.	68	16	38	70	22	41	68	26	44	64	9	33	61	0	32	..	..	..	70	0	34
April.	..	..	..	89	20	53	88	29	57	74	22	48	62	88	41	88	12	57	94	24	58
May.	..	..	..	82	45	60	84	51	63	70	22	52	81	34	53	99	39	61	90	50	69
June.	..	..	..	95	56	76	92	56	74	84	50	65	86	51	70	99	50	75	99	55	74
1820.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.	High.	Low.	Mean.
July.	..	..	..	98	70	78	88	70	81	87	58	73	92	65	69	90	54	74	97	58	75
August.	..	..	..	96	64	78	87	71	78	85	54	71	94	62	75	94	54	72	105	59	75
Septemb.	..	..	..	94	44	71	85	51	71	87	44	66	92	47	71	90	32	64	92	42	68
October.	..	..	..	76	36	52	72	48	56	76	30	52	74	30	51	70	20	44	80	22	47
Novemb.	..	..	..	60	22	40	64	34	50	60	20	41	60	24	40	60	-6	33	59	-4	34
Decemb.	..	..	..	45	27	33	58	32	43	58	9	26	48	6	27	33	-14	16	50	-5	18
Mean of the year	incomplete			53° 7'			58° 1'			48° 6'			47° 4'			incomplete			49° 2'		

In this region it may be observed that the most intense cold occurs at the most inland stations, Prairie des Chiens and Council Bluffs; but that the lowest average temperature is on the borders of the lakes.

3. The *temperate* region is situated between the cold and a line drawn from Morgantown, North Carolina, south-westward, along the foot of the mountains to their termination in Georgia, thence in a north-west direction by Florence, in Alabama, and crossing the Mississippi River about the upper part of the Chickasaw Bluffs, thence north-west to the Delaware towns, on White River, and thence south-west to the Arkansas, above the Hot Springs. The region described within these limits lies in the very heart of the country, the whole being on a considerable elevation. It comprehends Kentucky and Missouri, with nearly the whole of Ohio, Indiana, Illinois, and Tennessee, the south part of Pennsylvania, the western part of Virginia, and small portions of North Carolina, Georgia, and Alabama. This climate is distinguished from the foregoing principally by having an earlier spring, and the weather is generally more settled and serene, although both heat and cold occasionally go to as great extremes.

METEOROLOGICAL TABLE.

	Pittsburg. 1829. 40 32 N. Lat. 2 46 W. Lon.			Zanesville. 1819. 39 59 N. Lat. 4 58 W. Lon.			Marietta. 1819. 39 39 N. Lat. 4 28 W. Lon.			Chillicothe. 1819. 39 20 N. Lat. 5 45 W. Lon.			Cincinnati. 1819. 39 6 N. Lat. 7 31 W. Lon.			Jeffersonville. 1819. 38 12 N. Lat. 8 31 W. Lon.			Gallatin. 1819. 36 23 N. Lat. 9 38 W. Lon.			Huntsville. 1819. 34 36 N. Lat. 9 55 W. Lon.		
	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean
Jan.	42	10	29	68	10	40	67	16	42	64	18	40	70	20	37	66	20	47	74	20	47	70	27	51
Feb.	62	10	42	64	18	39	62	13	39	66	15	40	64	16	42	64	18	44	72	20	48	70	28	53
Mar.	54	21	42	62	10	39	67	15	40	68	14	41	63	10	40	68	19	44	80	12	46	76	26	50
Apr.	81	30	60	83	24	56	89	28	54	78	30	57	79	30	57	78	28	58	82	28	60	81	32	63
May	82	40	58	88	42	65	80	34	64	86	44	69	86	42	66	88	50	69	90	38	67	87	42	69
June	90	54	71	90	50	74	86	56	73	98	60	77	94	51	74	97	60	80	92	54	75	92	62	81
July	92	64	76	93	51	75	88	62	72	74	62	77	91	58	74	94	60	79	90	53	76	90	66	81
Aug.	89	60	72	96	50	78	93	56	78	72	60	80	92	52	77	99	56	82	90	58	75	87	69	79
Sep.	89	41	64	92	41	69	88	48	69	89	52	70	90	45	69	94	50	70	94	42	71	86	60	76
Oct.	76	40	54	76	25	55	81	30	52	86	32	56	83	29	55	72	34	60	..	..	..	83	38	62
Nov.	62	32	46	71	20	49	72	22	48	72	32	59	76	28	51	68	30	53	80	22	54	79	36	58
Dec.	48	28	37	59	6	30	57	12	35	60	16	39	63	12	38	58	4	37	..	..	..	64	18	42
Mean of the year	54° 2'			55° 7'			55° 6'			58° 8'			56° 8'			60° 3'			incomplete			63° 7'		

4. The region possessing a *warm* climate lies between the temperate and a line drawn from Cape Henry in a circular direction below Annapolis, and passing above Tarboro, and through Fayetteville, Columbia, Augusta, Milledgeville, and Fort Jackson, in Alabama, and thence a little south of west across the Mississippi, and on to the Sabine River, in the latitude of Nacogdoches, in Texas. In this region the winters commence about the 1st of January, and end about the 1st of March; and the summers commence about the 1st of May, and end about the middle of October. The weather is pretty settled and steady, and, except in swampy or marshy situations, the country is generally healthy.

METEOROLOGICAL TABLE.

	Norfolk. 1820. 36 53 N. Lat. 00 47 E. Lon.			Augusta. 1819. 33 15 N. Lat. 5 00 W. Lon.			Milledgeville. 1819. 32 55 N. Lat. 6 10 W. Lon.			Monroe. 1819. 32 23 N. Lat. 9 38 W. Lon.		
	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean
January . . . . .	..	..	..	71	19	51	70	17	48	72	38	63
February . . . . .	..	..	..	74	20	48	68	31	45	78	29	57
March . . . . .	..	..	..	79	31	54	70	32	57	85	30	63
April . . . . .	..	..	..	83	22	61	84	42	65	87	48	72
May . . . . .	..	..	..	..	..	..	..	..	..	92	51	73
June . . . . .	..	..	..	..	..	..	92	61	82	94	57	76
July	89	70	80	100	72	85	95	78	87	92	63	79
August	89	74	79	..	..	..	92	78	86	94	65	80
September	83	71	78	..	..	..	92	62	79	..	..	..
October	80	50	67	..	..	..	..	..	..	90	35	62
November	79	41	56	..	..	..	..	..	..	..	..	..
December	65	40	50	..	..	..	..	..	..	76	21	39
Mean of the year	incomplete.			incomplete.			incomplete.			incomplete.		

5. The *hot* region extends from the southern extremity of the warm to the Atlantic Ocean and Gulf of Mexico. In this climate the summers commence in April and end in November, and the heat is often very oppressive; the winters are often very variable, but generally pleasant and healthy. The whole of this district being on the alluvial formation, there are many swamps and marshes interspersed through it, and near these the summers are very unhealthy, but in high and dry situations the climate is favourable. The diseases particularly incident to this district are bilious fever, and fever and ague; but on the other hand pulmonary complaints, and many others which prevail in cold countries, are hardly known.

METEOROLOGICAL TABLE.

	Fort Johnson. 1820. 33 51 N. Lat. 1 10 W. Lon.			Savannah. 1819. 32 8 N. Lat. 4 15 W. Lon.			Fernandina, Fl. 1820. 30 37 N. Lat. 4 45 W. Lon.			Fort Scott. 1820. 30 43 N. Lat. 7 23 W. Lon.			New Orleans. 1820. 30 00 N. Lat. 13 10 W. Lon.			Baton Rouge. 1820. 30 36 W. Lon. 15 14 N. Lat.			Camp Ripley. 1820. 31 18 N. Lat. 16 50 W. Lon.		
	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean	High.	Low.	Mean
January	63	32	47	75	28	53	79	35	55	74	32	55	..	..	..	..	..	..	..	..	..
February	79	40	55	79	32	57	78	50	65	72	31	61	..	..	..	78	51	64	..	..	..
March	62	34	60	87	30	60	70	50	61	78	38	66	..	..	..	78	32	61	..	..	..
April	82	32	67	89	34	64	85	45	72	89	44	68	78	58	73	86	42	70	87	55	76
May	82	60	69	93	56	74	86	61	74	88	56	74	87	72	79	90	58	75	88	54	76
June	84	64	75	97	64	78	87	67	78	91	50	78	91	72	86	94	60	81	92	57	78
July	89	75	81	94	68	78	87	71	80	91	60	79	90	80	82	90	70	79	93	72	81
August	90	72	83	91	68	78	88	70	79	92	68	80	92	78	85	92	74	83	94	65	82
September	86	67	78	92	60	76	87	73	80	80	65	75	88	71	81	88	64	77	92	56	77
October	84	50	67	87	41	66	85	50	69	89	60	70	84	45	65	84	40	67	85	48	66
November	79	40	61	..	..	..	76	43	64	78	40	60	75	39	57	84	36	61	84	32	60
December	79	51	57	..	..	..	75	50	61	84	32	59	77	39	60	76	40	60	79	28	53
	66° 7'			incomplete.			70° 1'			68° 7'			incomplete.			incomplete.			incomplete.		

It is worthy of remark that the heat, though it is of longer duration in the warm and hot regions, is not of greater intensity than in the cold and very cold. In the

latter the thermometer reaches 98°, or even 99°; while in the former the summer heat is generally below that line, and only once appears in the tables above it, namely, at 100°. We add a table, giving a more general view of the subject under consideration.

General Abstract from all the Observations made at the Military Posts of the United States for 1820; Thirty-seven Posts, extending from 30° to 45° 55' North Lat. and 6° 46' East to 19° 45' West Longitude.

	Average at			General Average	Highest, and place of observation.	Lowest, and place of observation.	Range.
	7 A.M.	2 P.M.	9 P.M.				
January ..	25	33	29	29	79 Fernandina	†-30 St. Peters	109
February ..	38	46	32	42	79 Fort Johnson	-17 Plattsburg	96
March ...	41	49	44	45	78 Belle Fontaine	-10 St. Peters	88
April ...	56	66	60	61	94 Council Bluffs	10 Ditto	84
May	61	71	65	66	90 Montpellier	22 Ditto	68
June	70	84	74	76	99 Prairie des Chiens	50 Ditto	49
July	74	82	75	77	98 Fort Mifflin, Philadelphia	54 Ditto	44
August ..	73	81	75	76	*105 Council Bluffs	53 Boston	52
September .	67	76	70	71	99 Ditto	30 St. Peters	69
October ..	52	60	56	56	88 Baton Rouge	20 Prairie des Chiens	68
November .	42	50	46	46	84 Camp Ripley	-7 St. Peters	91
December .	34	41	37	37	84 Fort Scott	-30 Ditto	114
General Mean	52	62	56	57	*105 Sunday, 13th of August	†-30 Sunday, 30th of January	135

Mr. Melish informs us that the observations from which his tables were compiled were taken, as we believe similar observations have generally been, at the hours of seven A.M. and two and nine P.M.; but we agree in the opinion that this method gives a mean temperature much too high. It is obvious that the coldest portion of the twenty-four hours, that between nine in the evening and seven in the morning, is wholly excluded from the calculation. It appears also, as might have been expected, that, by taking the morning observations very early, Messrs. Brantz and Haines have produced tables with a mean temperature lower, and doubtless more correct, than others. As a specimen of the deductions to be made on this ground from Mr. Melish's tables, which we have given above, our readers may refer to the city of Washington, in the second region, the mean temperature of which is stated to be 58°, while Mr. Brantz reduces it to 52° and $\frac{1}{2}$, Mr. Haines to 49°, and Mr. Darby finally adjudges it to 53° and $\frac{1}{2}$. Climate, however, is not to be determined by the mere use of the thermometer. Great as the importance of this instrument is, when accurately constructed and properly employed, it is liable to so much error and unskilful use, and has yielded, in point of fact, so many irreconcilable and obviously mistaken results, that little dependence can be placed on it alone. Hence arises the necessity of taking into the account prevailing winds, the freezing of rivers, vegetable indications, and whatever else may be auxiliary to a correct judgment. The following table, exhibiting the

course of the winds and the state of the atmosphere at various places in the United States, is given by Mr. Melish, as compiled from official information :

Places,	Winds.								Atmosphere.				
	N.	N.W.	N. E.	E.	S. E.	S.	S.W.	W.	Clear	Cloudy	Rain	Snow	
Portsmouth	16	147	40	32	22	35	28	41	208	116	23	18	In the very cold climate
Boston	30	64	43	32	16	37	88	49	224	84	35	22	
Mackinaw, Oct. Nov. Dec. . .	7	16	13	7	17	6	9	17	12	24	33	23	
St. Peters, eleven months . .	19	74	21	12	71	34	70	53	223	32	57	31	
New York, Jan. Feb. March .	7	37	8	0	3	0	28	6	54	15	14	11	Cold
Philadelphia	19	76	65	39	31	28	65	43	216	85	55	9	
Washington	56	87	35	16	24	40	55	56	222	58	72	13	
Sackett's Harbour	48	58	47	14	42	25	58	38	186	93	54	37	
Prairie des Chiens, nine months	11	80	9	2	26	8	81	27	138	51	46	9	Temperate Warm
Council Bluffs	41	62	34	23	113	46	27	16	236	73	48	11	
Detroit, six months	21	10	9	13	18	76	17	20	84	86	12	2	
Pittsburg	26	54	36	25	58	28	71	42	210	55	45	20	
Norfolk, six months	6	33	55	11	21	2	51	5	123	39	21	0	Hot
Fort Johnson	44	37	45	30	35	108	40	25	216	78	64	0	
Fernandina	15	32	82	25	145	6	41	20	257	68	40	0	
Fort Scott	39	7	11	59	16	71	15	146	209	88	68	0	
Baton Rouge, eleven months .	15	69	35	23	65	17	103	8	162	76	97	0	Hot
Camp Ripley, nine months . .	17	27	31	13	46	20	74	28	129	66	71	0	

In this table the state of the atmosphere deserves notice, for the very large proportion of dry and clear weather. This is a highly characteristic and important feature of the North American continent, as contrasted, at least, with our own country, and contributes much to diminish the rigour and increase the salubrity of the climate. For the further illustration of the prevailing winds we insert two tables given by Mr. Darby:

Abstract of the prevailing Winds at various points of the United States, above North Latitude 35°. The whole numbers reduced to proportions of 1000.

Places of Observation.	N. E.	N.	N. W.	W.	S. W.	S.	S. E.	E.
Polar Sea	122	100	394	794	132	32	112	28
Fort Brady	32	58	159	274	79	86	241	73
Basin of Columbia	130	20	118	44	401	33	200	53
Valley of Missouri	117	58	294	73	244	21	141	48
Council Bluffs	71	196	151	53	101	246	134	61
Fort Howard	384	23	23	26	535	13	3	6
Fort Crawford	32	186	250	53	101	190	137	10
New Harmony	101	131	124	165	221	155	65	33
Cincinnati	164	22	211	77	343	22	135	26
Washington City	165	65	257	72	238	96	90	14
Baltimore	194		303		208		295	
Philadelphia	196	49	227	120	255	58	69	32
Germantown	97	48	194.3	301	167	49	64	78.5
New York	116	24	301	69	210	130	134	29
Newport, R. Island.	112	101	213	61	335	66	89	33
Eastport, Maine.	68	169	229.7	159	123	234	26	69
	2102	1190	3454	1638	3693	1231	1929	593.5

Abstract of the prevailing Winds at various points of the United States, below North Latitude 35°. The whole reduced to proportions of 1000.

Places of Observation.	N. E.	N.	N. W.	W.	S. W.	S.	S. E.	E.
Baton Rouge	236	5	133	83	208	94	153	100
Pensacola	417	36	97	47	83	25	250	58
Cantonment Jessup .	146	79	99	65	151	109	235	127
Tampa Bay								
St. Augustine	416	36	97	47	83	25	250	58
Charleston, S. C. . .	228	59	38	57	127	169	186	126
Smithville, N. C. . .	42	293	109	141	52	299	21	53
Amount	1485	508	573	440	704	721	1095	522

The general result deducible from these tables, which are in harmony with many other observations, is, that westerly winds prevail above N. Lat. 35°, and easterly winds below it. In the former table, out of 15,830 decimal numbers 8785 are from the N. W. W. and S. W.; in the latter, out of 5048 decimal numbers 3102 are from the N. E. E. and S. E. This course of the winds is conceived by Mr. Darby to be owing to no circumstances peculiarly affecting the North American continent, but rather to some more general, though little understood, causes, which give a similar determination to the air in similar latitudes over the whole earth. He connects the ascertained facts with the ingenious theory, that the winds, uninfluenced by local interruptions, follow a parabolic curve from the polar to the tropical regions of the earth, with the sweep of the curve eastward.

Comparing with each other the several parts of the United States in the same latitudes, two diversities of climate may be noticed. The maritime district on the Pacific Ocean is much warmer than corresponding latitudes on the Atlantic. At the mouth of the river Columbia, in N. Lat. 46°, the thermometer is seldom below the freezing point; while on the eastern part of the continent the winters in this parallel are excessively cold. This seems to arise from the prevalence of westerly winds in the latitudes in question, a cause which makes all western coasts in similar parallels of milder climate than the eastern. In addition to this, it has been *supposed*, also, that the country in the valley of the Mississippi has milder winters than the Atlantic shores. Many persons seem to have been influenced to go into the interior by this idea, which was strongly maintained by the French traveller, Volney; but which, after exciting much diversity of opinion, is now shown to be as contrary to fact as it was in the first instance to probability. Mr. Darby thus sets the question at rest. Referring to the growth of vegetables, he says,^d "I surveyed southern Louisiana

^d View of the United States, p. 421.

from the Sabine eastward, and found the live oak, *quercus sempervirens*, flourishing along the rivers in the delta and its vicinity; but when the great body of woods which bounds the delta above the marshes and prairies is passed, and the north-west winds from Texas have full sweep along the Calcasieu and the Sabine, the live oak ceases. In the delta this production is found as high as N. Lat. $30^{\circ} 22'$, rising to the majesty of a forest tree; yet in their utmost range in the basin of Mississippi this and the chaemerops, or dwarf palm, cease far south of their limit on the Atlantic coast. The large palm (cabbage tree) is not found in Louisiana. The live oak rises to considerable height and column as high as the mouth of Cape Fear River, N. Lat. 34° , full $3\frac{1}{2}^{\circ}$ beyond its greatest northern residence in the central basin. In Louisiana the orange tree cannot be cultivated to much advantage above N. Lat. 30° , and it ceases altogether about a degree farther north; the sugar cane, with a slightly higher locality, does not flourish beneficially much above the orange; but both these vegetables are profitably cultivated along the Atlantic coast as high as N. Lat. $33^{\circ} 30'$. We thus find tender vegetables either indigenous, or cultivated as objects of emolument, on latitudes along the Atlantic coast where no art could produce a similar effect directly west on the Mississippi. Natchez stands on a hill, or series of hills, about one hundred feet above the ordinary level of the Mississippi at N. Lat $30^{\circ} 33'$, almost directly west from Sapelo island; but at Natchez, and even on the low banks of the Mississippi, opposite that city, neither the orange nor cane could be cultivated. The thermometer, whilst I myself resided in the vicinity, fell to 12° above zero near that city, in December, 1799. No winter passes at Natchez without severe frost, and snows are there annual and not seldom deep, and resting on the ground from five to ten or twelve days. I once, in January, 1812, witnessed at Opelousas snow eleven inches deep, which did not entirely disappear in less than seven or eight days. The Ohio and all its branches, as well as other rivers more westward, are more deeply, more frequently, and longer frozen than those on the Atlantic Slope by a difference of three or four degrees of latitude." It is obvious, therefore, that the supposed mildness of the Ohio Valley, so much insisted on by Volney and others, has really no existence; but that, on the very contrary, the cold of winter is several degrees more severe in the interior than on the Atlantic border of the United States upon any given latitude.

In addition to the general division of the climate of the United States which we have already given, we may add the following view of that of the Mississippi Valley, for which we are indebted to the industrious observation of Mr. Flint.* We may conceive four distinct climates between the sources and the outlet of the Mississippi. The first, commencing at its sources and terminating at Prairie du Chien, corresponds pretty accurately to the climate between Montreal and Boston, with this difference, that the amount of snow falling in the former is much less than in the

* Geography and History of the Western States.

latter region. The growing of gourd seed corn, which demands a higher temperature to bring it to maturity, is not pursued in this region. The Irish potatoe is raised in this climate in the utmost perfection. Wheat and cultivated grasses succeed well. The apple and pear tree require fostering and southern exposure to bring fruit to perfection. The peach tree has still more the habits and the delicacy of a southern stranger, and requires a sheltered declivity with a southern exposure to succeed at all. Five months in the year may be said to be under the dominion of winter. For that length of time the cattle require shelter in the severe weather, and the still waters remain frozen.—The second climate prevails over the opposite states of Missouri and Illinois in their whole extent, or the country between 41° and 37° . Cattle, though much benefited by sheltering, and often needing it, here seldom receive it. It is not so favourable for cultivated grasses as the preceding region. Gourd seed corn is the only kind extensively planted. The winter commences with January, and ends with the second week in February; the ice in the still waters after that time thaws. Wheat, the inhabitant of a variety of climates, is at home, as a native, in this. The persimon and the pawpaw are found in its whole extent. It is the favoured region of the apple, the pear, and the peach. Snows neither fall deep, nor lie long. The Irish potatoe succeeds to a certain extent, but not as well as in the former climate; but this disadvantage is supplied by the sweet potatoe, which, though not at home in this climate, with a little care in the cultivation, flourishes. The grandeur of the vegetation, and the temperature of March and April, indicate an approach towards the southern regions.—The third climate extends from 37° to 31° . Below 35° , in the rich alluvial soils, the apple tree begins to fail in bringing its fruit to perfection; apples worth eating are seldom raised much below New Madrid. Cotton, between this point and 33° , is raised, in favourable positions, for home consumption, but is seldom to be depended upon for a crop. Below 33° commences the proper climate for cotton, and here it is the staple article of cultivation. Festoons of long moss hang from the trees, and darken the forest, and the palmetto gives to the low alluvial grounds a grand and striking verdure. The muscadine grape, strongly designating climate, is first found here. Laurel trees become common in the forest, retaining their foliage and their verdure through the winter; wheat is no longer seen as an article of cultivation, but the fig tree brings its fruit to full maturity.—Below this limit to the gulf, is the fourth climate, the region of the sugar cane and the sweet orange tree. It would be, if it were cultivated, the region of the olive. Snow is no longer seen to fall, except a few flakes in the coldest storms; the streams are never frozen; winter is only marked by nights of white frosts, and days of north-west winds, which seldom last longer than three days in succession, and are followed by south winds and warm days. The trees are generally in leaf by the middle of February, and always by the first of March. Bats are hovering in the air during the night, and fireflies are seen by the middle of February. Early in March the forests are in blossom; the delightful

white flowers of the *cornus florida*, and the brilliant red tufts of the redbud, or *cercis canadensis*, are unfolded; the margins of the creeks and streams are perfumed with the meadow pink, or honeysuckle, yellow jessamine, and other fragrant flowers. During almost every night a thunder storm occurs. Cotton and corn are planted from March to July. In these regions the summers are uniformly hot, although there are days when the mercury rises as high in New England as in Louisiana; the heat, however, is more uniform and sustained, commences much earlier, and continues much later. From February to September thunder storms are common, often accompanied with severe thunder, and sometimes with gales, or tornadoes, in which the trees of the forest are prostrated in every direction, and the tract of country which is covered with the fallen trees is called a 'hurricane.' The depressing influence of the summer heat results from its long continuance, and its equable and unremitting tenour, rather than from the intensity of its ardour at any given time; it must, however, be admitted, that at all times the unclouded radiance of the vertical sun of this climate is extremely oppressive.

The winters, through the whole extent of the country, are variable, passing rapidly from warm to cold, and the reverse. Near the Mississippi, and where there is little to vary the general direction of the winds, they ordinarily blow three or four days from the north. In the northern and middle regions the consequence is cold weather, frost more or less severe, and perhaps storm, with snow and sleet; during these days the rivers are covered with ice. When the opposite breeze alternates, there is immediately a bland and relaxing feeling in the atmosphere; it becomes warm, and the red-birds sing on these days in January and February, as far north as Prairie du Chien. These abrupt and frequent transitions can hardly fail to have an unfavourable influence upon health. From 40° to 36° N. Lat. the rivers almost invariably freeze, for a longer or shorter period, through the winter. At St. Louis on the Mississippi, and at Cincinnati on the Ohio, in nearly the same parallels, between 38° and 39°, the two rivers are sometimes capable of being crossed on the ice for eight weeks together.

Although the summers over all this valley must be admitted to be hot, yet the exemption of the country from mountains and other impediments to the free course of the winds, and the circumstance that the greater proportion of the country has a surface bare of forests, together probably with other unexplained atmospheric agents, concur to create, during the sultry months, almost a constant breeze; it thence happens that the air on these wide prairies is rendered fresh, and the heats are tempered in the same manner as is felt on the ocean. The same degree of heat in the spring does not advance vegetation as rapidly in the south as in the north. "We have seen a brilliant sun, and felt the lassitude of warm spring days continued in succession," says Mr. Flint, "and yet have remarked the buds to remain almost stationary, and the development of vegetation to be almost imperceptible; while the same amount of heat at Quebec would have completely unfolded the foliage, and clothed the earth with verdure."

It is a very prominent feature of the climate of North America that it is much colder than similar latitudes in Europe; as appears strikingly from the fact that the New England states, which fall within the very cold or coldest section of the republic, are in the same latitude as Italy. The principal cause of this difference is to be found, doubtless, in the vast extent of land which, with little intermission, stretches into the north-polar regions, and forms an immense deposit of ice and snow for the refrigeration of the southern lands. The changes of the seasons are for the most part abrupt; and on the Atlantic coast it appears that very sudden and extensive changes of the weather are of frequent occurrence.

One of the causes operating on the climate of the United States, in a direction contrary to that which we have just noticed, is the oceanic current, commonly known as the Gulf Stream. It is now well ascertained that a current exists in the ocean, by which the whole body of water, for as much as 28° on each side of the equator, flows towards the west. This current setting in from the coast of Senegal, in Africa, is borne against that of central America, where a very large division of it forces its way into the Gulf of Mexico, whence it issues through the Bahama Channel, along the shore of the United States to Cape Hatteras, and towards Cape Cod. Mr. Darby shows, by tables constructed with great care, that the surface of this current is considerably warmer than that of any other part of the ocean. In 3° N. Lat. it was found by Humboldt at a temperature of 83° , gradually, and almost uniformly, cooling at greater distances from the equator, and at 40° N. or S. standing at 55° and 57° , a difference of 28° . From a variety of observations, it appears also that the temperature of the water of the Gulf Stream exceeds that of the air above it, generally by several degrees, and sometimes by nearly 20° . It is obvious, therefore, that this immense current, running always with considerable rapidity, and in the Bahama Channel with the force of a torrent, reaching sometimes the rate of five miles an hour, must have a great effect in diffusing caloric through the atmosphere, and especially upon the eastern and south-eastern shores of the United States. Allied to this oceanic current is the aerial one, the trade wind, which is known to flow in the same direction, and probably originates in the same cause, namely, the diurnal revolution of the earth. This current moves through the West Indies and the adjacent seas until it meets the American continent, which, in consequence of being slanted off from S. E. to N. W., impels the current of air in a similar course, and the current which passes towards the North American continent diverges over it in different directions. One branch takes a N. W. direction, and passing over New Mexico, and thence between the Stony Mountains and the Pacific Ocean, spends its force probably about N. Lat. 50° . Another branch takes a N. E. direction, and blows partly over the mountains, but principally between the mountains and the Atlantic Ocean; it seems to spend its force about the Potowmac, although it sometimes reaches as far as Philadelphia and New York. A third branch passes up the valleys of the Mississippi and Ohio, having often all the characteristics

of the original trade wind, and is so strong that it frequently passes over the large lakes, and sometimes reaches Montreal, and even Quebec.

With respect to the climate of the United States, two ideas have been entertained, which still demand briefly to be noticed. It has been conceived by some persons to have undergone a considerable change for the better since its colonization by Europeans. This idea may have originated perhaps in the same causes as a similar one respecting the climate of Europe; and it appears to be equally without foundation. On the contrary, there seems sufficient reason to conclude that, with whatever local and temporary variations, the climate is substantially unchanged. The winter, cold over the United States, as every where else on earth, is in direct intensity with height, latitude, and exposure; the interior states being more exposed to the influence of a central, elevated, and frozen table land, have winters much more severe than are experienced on similar latitudes on the Atlantic Slope; and the interior summers are equally in excess. But if the general climate has not altered, it has been confidently believed, that as the country was cleared and the timber removed, the winters have become milder. That the clearing and improvement of a region may contribute to its *salubrity* we entertain no question, the ways being obvious by which such a result must be produced; but we agree with Mr. Darby in thinking that it leads to no elevation of temperature. "Employed," says this gentleman, "ten or twelve years in exploring the prairies of Louisiana, I had ample means to test the seasons of a country naturally devoid of forest trees; and in the frequent, and sometimes not slight, snows of Opelousas, N. Lat. $30\frac{1}{2}^{\circ}$, I, as early as 1805, became convinced that removing timber must produce the very reverse of melioration, and then suspected, what is now proved, that in very open countries the range of the thermometer must be augmented." To this testimony may be added that of Mr. Dunbar, of Natchez, a close and very competent observer, respecting land which had been partially cleared. "It is with us a general remark that of late years the summers have become hotter, and the winters colder, than formerly. Orange trees, and other tender exotics, have suffered more in the neighbourhood of New Orleans within these four or five years than before that period; the sugar cane also has been so much injured by the severity of the first of the two last winters as greatly to discourage the planters, whose crops, in many instances, have fallen to one-third, or less, of their expectations. In former years I have observed the mercury of the thermometer not to fall lower than 26° or 27° ; but for a few years past it has generally, once or twice in the winter, fallen as low as from 17° to 20° , and on the 12th December, 1800, it was found sunk to 12° , which has hitherto had no parallel in this climate, and indicates a degree of cold which in any country would be reckoned considerable, and which probably may never again be produced by natural means in Lat. 31° $30'$. As this apparent alteration of climate has been remarked only for a few years, and cannot be traced up to any visible, natural, or artificial change of sufficient

magnitude, it would be in vain to search for its physical cause. Dr. Williamson and others have endeavoured to show that clearing, draining, and cultivation, extended over the face of a continent, must produce the double effect of the relaxation of the rigors of winter, and an abatement of the heats of summer. The former is probably more evident than the latter; but, admitting the demonstration to be conclusive, I would inquire whether a partial clearing, extending thirty or forty miles square, or to 300,000, or 3,000,000, may not be expected to produce a contrary effect by admitting with full liberty the sunbeams on the uncovered surface of the earth in summer, and promoting during winter a free circulation of cold northern air."† To us it appears that Mr. Dunbar might have spoken with much greater confidence, and that the partial clearing of the country is a sufficient physical cause for the diminution of the temperature.

To find the probable mean temperature of any place by comparing it with another of which the temperature is known, Mr. Darby suggests that one degree of Fahrenheit may be allowed for one degree of latitude, and the converse; and that 400 feet of elevation may be assumed to lower the thermometer one degree: he adds, however, very justly, that so many circumstances contribute, slightly, to influence the thermometer, that only general results can be expected from such comparisons, and that when the difference of latitude becomes considerable, they would be altogether delusive.

The rains of the United States are represented as occurring very irregularly, not only in the course of a single year, but through a succession of years. No sufficient data have yet been provided for the formation of philosophical views on this subject; but Mr. Darby has furnished us with tables of the monthly quantity of rain in several successive years at Baltimore, Germantown, and New Harmony, of which we avail ourselves. The Baltimore table we shall insert entire, adding to it the monthly mean quantities of the other two places.

Table of the monthly depth in inches of rain at Baltimore, from Mr. Brantz's Tables.

	1817	1818	1819	1820	1821	1822	1823	1824	Mean.	Mean at Germantown.	Mean at New Harmony.
January	2.25	1.9	.7	2.8	3.3	1.8	5.6	2.3	2.85	2.18	4.31
February	2.8	2.0	1.9	2.2	5.4	48	.7	5.9	3.225	3.58	4.04
March	4.5	3.0	4.55	3.3	1.7	1.3	7.1	4.3	3.71	3.07	3.38
April	1.5	2.1	2.7	1.1	2.1	2.1	1.8	4.7	2.20	2.62	4.52
May	2.6	6.45	4.1	4.4	5.1	1.5	2.1	2.95	3.65	2.87	2.61
June	9.1	1.15	1.3	4.6	1.8	1.5	1.6	5.03	3.66	3.22	4.41
July	3.5	4.1	2.2	2.2	7.5	4.35	3.6	3.37	3.85	4.25	3.54
August	10.4	2.0	4.3	8.0	0.3	.8	4.1	4.5	4.3	3.48	4.84
September	3.3	3.2	3.0	1.5	10.7	2.25	5.8	2.94	4.45	3.27	2.80
October	1.8	3.1	.7	7.8	3.4	2.5	2.8	1.77	2.975	3.50	2.84
November	3.7	2.0	1.1	2.7	5.6	5.1	3.1	2.27	3.2	3.01	1.62
December	3.6	2.6	2.2	1.9	3.3	1.2	6.25	2.25	2.9	3.05	3.94
Amount.	48.55	32.6	28.75	40.5	50.2	29.2	44.55	42.28	39.97	38.10	42.85

† Transactions of the American Philosophical Society, vol. vi. p. 40.

The SOIL of the United States is naturally enough represented as comprehending every kind, from the very best to the very worst. Of course it is not to be supposed that it divides itself into such spaces as to render possible an accurate general estimate of it; we may nevertheless throw out a few hints of somewhat general application, leaving the minuter details for the account which we shall subsequently give of individual states. We may first notice that portion of the republic with which our readers are by this time familiar, under the name of the Atlantic Slope; we mean the country east of the Apalachian Mountains, from Cape Cod to Louisiana. Next to the ocean are salt meadows, or marshes, nearly level, sloping a very little towards the water, above which their surfaces have but little elevation wherever they are found. They are covered with a peculiar kind of grass, which is from six to twelve inches high, of a reddish colour, and grows very thick, the roots of which form a very compact turf or sward, and which requires a sharp instrument and considerable force to cut it. They are overflowed by the salt water a few inches deep several times in a year by the spring tides, and this appears to be necessary to the retention of their peculiar character; for if the water is kept from them by dykes, the upland grasses take root, the turf moulders away or loses its tenacity, and in a few years their appearance is completely changed. As the surface of these meadows lies a little above common high-water mark, there is generally a slope of about six feet in two or three rods, to low-water mark; and this slope is covered with a coarse tall grass called sedge, which requires a partial inundation every tide, or twice in twenty-four hours, to bring it to maturity. Adjoining the salt meadows, on the same level, and at the farthest extent to which the salt water flows at spring tides, fresh meadows commence by an almost imperceptible line of distinction, and they generally extend to the upland; but sometimes there is wet ground covered with bushes or a swamp between them and the upland. They are wet and soft, and few will bear a waggon. Similar meadows are sometimes found several miles from any salt meadows or salt water, and generally at the heads of rivers, where the face of the country is level. The general appearance of all these meadows is the same; being covered with wild grass of different kinds from twelve to thirty-six inches high, according to the quantity of water in the soil, and the more water there is, the coarser and taller the grass will be, until flags and rushes take its place. The meadows are much lower than the upland, and were evidently formed by the agency of water, which has deposited an alluvial soil, composed of the finer particles from the higher grounds, and of decayed vegetable substances. If they are drained by a large ditch round them at the foot of the upland, and one through the lowest part of them, so that the water from it may soon run off, they become hard, will produce cultivated grass and even trees, and will in a few years lose all their former features, except their low situation and level aspect.

The soil of this section is to a great extent sandy; very light, therefore, and sometimes barren, more especially near the coast, where also is much marsh land, with extensive swamps. These swamps are in many places to an immense extent covered with an impenetrable growth of timber, especially of the cypress and some species of pine, the maturity of which is favoured by the deep clayey soil, augmented by a fresh deposit every year; Louisiana, towards the sea, exhibits a great breadth of this character through its whole reach. Along the rivers there is found a considerable quantity of rich clay; many fertile spots likewise are interspersed among the sands, and the land generally improves as it approaches the mountains. The central portion of the slope between the mountains and the sea possesses the best soil, the change of which is particularly discernible along the course of the rocky ridge which has already been described in our account of this region. In the alluvial district of Louisiana the soil is for the most part deep and rich; it is also strong and vigorous on the Red River. Along the range of the Apalachian Mountains a thin and poor soil prevails, mingled, however, with many rich and productive valleys. In the northern portion of it are a large number of boulders, which give to the country a very stony and barren appearance, even where the soil is fertile.

When we cross the mountains, and come to the great plain descending from them to the Mississippi, we survey an immense extent of almost universally fertile country. The general surface of the Mississippi Valley may be classed under three distinct aspects,—the thickly timbered, the barrens, and the prairie country. In the first division, every traveller has remarked, as soon as he descends to this valley, a grandeur in the form and size of the trees, a depth of verdure in the foliage, a magnificent prodigality of growth of every sort, that distinguishes this country from other regions. The trees are large, tall, and rise aloft, like columns, free from branches. In the rich lands they are generally wreathed with a drapery of ivy, bignonia, grape vines, or other creepers. Intermingled with the foliage of the trees are the broad leaves of the grape vines, with trunks occasionally as large as the human body. Sometimes the forests are as free from undergrowth as an orchard; at others the only shrub that is seen among the trees is the pawpaw, with its splendid foliage and graceful stems; but often, especially in the richer alluvions of the south, beneath the trees there are impenetrable cane brakes, and a tangle of brambles, briar vines, and every sort of weed; which constitute the safe retreats of bears and panthers. This undergrowth universally indicates a rich soil.

The country denominated barrens has a very distinct and peculiar configuration. It is generally a country with a surface undulating with gentle hills, characterized by long and uniform ridges. The soil is for the most part of a clayey texture, of a reddish or greyish colour, and is covered with a tall and coarse grass. In addition to a peculiarity of aspect more easily felt than described, the trees are generally thinly scattered, seldom

large or very small. They are chiefly of the different kinds of oaks, and the trees of the barrens have an appearance and configuration appropriate to the soil they inhabit. The land never exceeds second rate in quality, and is more generally third rate. It is favourable, in the proper latitudes, to the growth of wheat and orchards. The barrens are found in a level country, with here and there a gentle rise, only a few feet higher than the land around it. On these little elevations, for they are not hills, trees grow, and grass also; but grass and weeds are the only occupants of the soil where there is no rise of ground. The soil is alluvial to a greater or less depth in the barrens, though on some of the highest points there is little or none; the lower the ground the deeper the alluvion. On these elevations, where there is no alluvion, is stiff blue clay, without pebbles. Under the alluvial soil in the lower grounds are pebbles. On the little ridges, wherever the land is not too moist, the oak or the hickory (walnut) has taken possession, and there grows to a moderate height in clusters. It would seem, that whenever the land had become sufficiently dry for an acorn or a hickory nut to sprout, take root, and grow, it did so; and from one or more of these trees, in time, others have grown around them in such clusters as we now behold; where the land is lower, and the soil deeper, more moist and more fertile, the grass was too thick, and the soil too wet, for such kind of trees to grow as were found in the immediate vicinity. Imagine, then, natural meadows of various dimensions, and of every figure which the imagination can conceive, with here and there a gentle rise of ground, decked with a few scattered trees or a thick cluster of them, and bearing a tall coarse grass, which is thin on the elevated parts, but on the lower grounds thick and luxuriant; imagine, also, a rill of a reddish colour, scarcely meandering through ground a little lower than the surrounding plain—and you will have a very correct idea of the appearance of these barrens. On the whole the barrens have an aspect so peculiar and appropriate, that no person at all used to this country is in doubt for a moment when he enters on the region occupied by them. There are large districts of this kind in Kentucky, Tennessee and Alabama; it is common in Illinois and Missouri, and is seen with more or less frequency over all the valley of the Mississippi. In this region, and in the hazel or bushy prairies, are most frequently seen those singular cavities called sink-holes. They are generally in the shape of funnels, or inverted cones, from ten to seventy feet in depth, and on the surface from sixty to three hundred feet in circumference. There are generally willows and other aquatic vegetables at their sides and bottoms; there is little doubt that they are caused by running waters, which find their way through the limestone cavities beneath the upper stratum of soil.

The remaining, and by far the most extensive surface, is that of the prairies. Although they have no inconsiderable diversity of aspect, these may be classed under three general divisions; the heathy, or bushy; the alluvial, or wet; and the dry, or

rolling prairies. The heathy prairies seem to be of an intermediate character between the alluvial prairies and the barrens. They have springs. They are covered with hazel and furze bushes, small sassafras shrubs, with frequent grape vines, and in the summer with an infinite profusion of flowers; the bushes are often overtopped with the common hop vine. Prairies of this description are very common in Indiana, Illinois, and Missouri, and they occur among the other prairies for a considerable distance towards the Chippewyan Mountains. The dry or undulating prairies are for the most part destitute of springs, and of all vegetation, but weeds, flowering plants, and grass. To the sight they are so nearly level, and the roundings of their undulations so gentle, that the eye, taking in a great surface at a single view, deems them a dead level; but the ravines made by the water-courses through them, sufficiently indicate that their swells and declinations communicate a quick motion to the waters that fall on them. This is by far the most extensive class of prairies. These are the plains over which the buffaloes range; and it is these plains, without wood or water, in which the traveller may wander for days, and see the horizon on every side sinking to contact with the grass. The alluvial or wet prairies form the last and smallest division. They generally occur on the margins of the great water-courses, although they are sometimes found, with all their distinctive features, far from the points where waters now run. They are commonly basins, as regards the adjacent regions, and their outlines are marked by regular benches. They are for the most part of a black, deep, and very friable soil, and of exhaustless fertility. In the proper latitudes they are the best soils for wheat and maize, but are ordinarily too tender and loamy for the cultivated grasses, though they rear their own native grasses, of astonishing height and luxuriance. An exact account of the size and rankness of the weeds, flowering plants, and grass on the richer alluvial prairies of Illinois and Missouri, would seem to those who have not seen them an idle exaggeration. Still more than the rolling prairies, they impress the eye as a dead level; but they still have their slight inclinations and depressions, where their waters are arrested and carried off: yet, from their immense amount of vegetation, and from the equality of their surface wherever they are considerably extensive, they have small ponds, and bayous, which fill from the rivers and from rains, and are only exhausted during the intense heats of summer, by evaporation. These ponds, in the alluvial prairies that are connected with the rivers, when they overflow by bayous, are filled in the season of high waters with fish of the various kinds; as the waters subside, and their connecting courses with the river become dry, the fish are taken by cart-loads among the tall grass, where the water is three or four feet deep. When the waters evaporate, during the heats of summer, the fish die, and although thousands of buzzards prey upon them, they become a source of pollution to the atmosphere; hence these prairies, beautiful as they seem to the eye, and extraordinary as is their

fertility, are very unfavourable positions, in point of salubrity. Flocks of deer are seen scouring across these rich plains, or feeding peaceably with the domestic cattle. In the spring and autumn innumerable flocks of water-fowls are seen wheeling their flight about the lakes and ponds of these prairies, and they find copious pasture in the oily seeds of the plants and grasses that have seeded during the summer. During the months of vegetation no adequate idea could be conveyed by description of the number, forms, varieties, scents, and hues of the flowering plants, or of the various flowers of the richer prairies. In the barrens are four or five varieties of ladies' slippers, of different and the most splendid colours, but the violets, and the humbler and more modest kinds of garden flowers, are not capable of competing with the rank growth of grass and weeds that choke them; some of the taller and hardier kinds of the liliaceous plants struggle for display, and rear themselves high enough to be seen. Most of the prairie flowers have tall and arrowy stems, and spiked or tassellated heads, and the flowers have great size, gaudiness, and splendour, without much fragrance or delicacy. The most striking of these flowers we may notice further in another place; only remarking here, that during the summer the prairies present distinct successions of dominant hues as the season advances. The prevalent colour of the prairie flowers in spring is bluish purple; in midsummer, red, with a considerable proportion of yellow; in autumn the flowers are very large, many of them of the helianthus form, and the prairie receives from them such a splendid colouring of yellow, as almost to present to the imagination an immense surface of gilding.

The northern shores of Lakes Ontario and Erie, the western shore of Lake Huron (the eastern shore of Lake Michigan is sandy and barren), and the general surface of the valleys of the Ohio, the Illinois, and the Mississippi, afford a highly productive soil. The extended valley of the Tennessee, also, more to the southward, is one of the most fertile portions of the republic. The same character of fertility extends itself beyond the Mississippi below the Missouri, until it is checked by the Ozark Mountains, the productive portion of which is confined to the valleys. On the banks of the Missouri, likewise, and for some distance up its tributary streams, rich soil is found. The same may be said of the Mississippi above its junction with the Missouri; but towards the sources of these rivers the ground is extremely barren. The southern coast of Lake Superior is either sandy or rocky, and generally sterile. To the west of the Ozark Mountains and of the Missouri the soil becomes less and less fertile, till at length we reach an immense tract of sand and barrenness, extending the whole way to the Chippewyan Mountains. This portion of the United States is rendered more desolate by the large quantity of salt and magnesia contained both in the soil and the rivers; it has been, not unjustly, called the Great Desert of North America, and bears no inconsiderable resemblance to the tract of the same denomination in Africa. It never can be permanently inhabited. Eastward of the Mississippi

there is a copious natural growth of timber; but the region westward of that river is marked by the gradual diminution and final disappearance of this important production, a circumstance by which the country is rendered unfit for settlers, independently of the quality of the soil. Lumber is almost totally absent from the banks of the Missouri above the River Platte, although the soil still continues rich.

With the Chippewayan mountains commences a change. The summits of these mountains, of course, are sterile, being rugged rocks, and covered with snow the greater part of the year; but among them are sheltered and fertile valleys. The timber in the mountains is pine, spruce, fir, and the other terebinthines. The terrace plains below generally have a fine soil, but are very deficient in timber. The prairies, like those in the Mississippi valley, are covered with grass, and a profusion of most beautiful flowers. Among the prairie plants are two or three kinds of edible roots, which furnish vegetable food to the savages, as an accompaniment to the great proportion of salmon which they devour. Wild sage is also an abundant herb; it grows of a size and height like a small tree, and on these extensive plains is one of the principal articles of fuel. The sea shore, for a considerable distance to the interior, is skirted with deep and thick forests of evergreens, such as pine and hemlock. On the whole, it is believed that few countries on the earth have a more fertile soil and agreeable climate than the valleys of the region west of the Rocky Mountains.

When a farmer clears the land of the United States, under the trees he finds a stratum of black vegetable mould, more or less thick in proportion to the original properties of the soil, the time that the trees have been dropping their manure upon it, and the declivity which obstructs or facilitates its washing away; for this mould is lighter than water, and runs off rapidly from the sides of the hills, and seldom or never lies long on the steep descents of mountains. While this bed of vegetable mould remains, the labour of the farmer is rewarded by rich and abundant crops; for when he sows and reaps from such a soil, four or five years before he exhausts it, he not only expends as many years' natural production, but he consumes many hundred or perhaps thousand years' accumulation of natural manure, which it would require a very long time for the common operations of production and decomposition to replace. While this vegetable mould is in sufficient quantities on the surface, the land is more or less fertile, independently of the nature of the earth on which it lies; it is when this coat of manure is gone, and the land worn out by constant cropping, that the soil shows its fertility, as depending on the nature of the rock of the country, and the species of earth or loam resulting from their decomposition. It is at that time that the difference between a granite and limestone soil appears, and any one can see the effects, though few ever think of inquiring into the cause; yet it is evident that the washing and decomposition of a granite soil, can only afford sand mixed with a small

proportion of clay, from the mode in which the rocks divide in their process of decomposition; and even this small quantity is liable to filter through the interstices left in the aggregates of gravel, by the form of their crystalline particles. The limestone, on the contrary, by its easy solution and facility of decomposition, furnishes to the exhausted soil, with every rain, a quantity of food, fitted by solution for vegetable absorption, as well as a great quantity of mould divided and triturated into impalpable powder, which forms an excellent pabulum, through which the vegetable can receive the other fluids necessary for its growth. Meantime this mould forms a retentive base or soil, which prevents the filtration of the smaller particles, and even retains the water in its pores, so as to give it out by regular evaporation to the surface, when necessary for the increase and support of the plants that may be sown on the land.

In such a variety of climate and exposure, in a country alternately covered in one point with the thickest forests, and in another spreading out into grassy plains, in one section having a very dry, and in another a very humid atmosphere, and having every shade of temperature, from that of the Arctic regions to that of the West Indies, there must necessarily be generated all the forms and varieties of disease that spring simply from climate. Emigrants will always find it unsafe to select their residence near stagnant waters and creeping bayous, on the rich and heavy timbered alluvions; yet these, from their fertility, and the ease with which they are brought into cultivation, are the points most frequently selected. The rich plains of the Scioto were the graves of the first settlers; but they have long since been brought into cultivation, and have lost their character for insalubrity. A thousand places in the west, which were selected as residences by the first emigrants on account of their fertility, and which were at first regarded as haunts of disease and mortality, have now a character for salubrity. On the lower courses of the Ohio, the Wabash, the Tennessee, the Mississippi and its southern tributaries,—in short, wherever the bottoms are wide, the forests deep, the surface level and sloping back from the river, and the vegetation rank; wherever the rivers overflow, and leave stagnant waters that are only carried off by evaporation; wherever there are in the bottoms ponds and lagoons, to catch and retain the rains and the overflow, it may be assumed as a general maxim that such positions will be unhealthy, and more or less so as more or fewer of these circumstances concur. Wherever these causes of disease exist, there is no part of the country which has not a summer of sufficient heat and duration to quicken them into fatal action. The very rich and extensive alluvial prairies of the upper Mississippi and of the Illinois, which are covered with a prodigious growth of grass and weeds, generally contain marshy basins, small lakes, and ponds, where the water from the bluffs and the high lands is caught and retained. They will ordinarily prove unhealthy, some think more so than the timbered country, until these reservoirs of stagnant waters are all drained, and the surplus vegetation is burned off, or

otherwise removed by the progress of cultivation. These places strike the eye with delight. Their openness and exposure to be swept by the winds seem to preclude them from the chance of sickness; their extraordinary fertility and their being at once ready for the plough, hold out allurements to emigrants; but there seems to be in the great plan of providence a scale in which the advantages and disadvantages of human condition are balanced. Where the lands are extremely fertile it seems to be appended to them, as a drawback to that advantage, that they are generally sickly. Emigrants have scarcely ever paused long enough, or taken sufficient elements into the calculation, in selecting their residence with a view to its salubrity. When the choice is to be made they are often encumbered with families, generally feel stinted both for time and money, and are in a hurry to commence operations for the supply of their wants; they are thus apt to give too little weight to the most important motive of all which ought to determine their election. A deep bottom, a fertile soil, a position on the margin of a navigable stream; these are apt to be the determining elements of their choice. The heavy forest is levelled; a thousand trees moulder and putrify about the cabin; the stagnant waters which, while shielded from the action of the sun by the forest, had remained comparatively innocuous, exposed now to the burning rays of the sun, and rendered more deleterious by being filled with trunks and branches of decaying trees and all kinds of putrid vegetation, become laboratories of miasma, and generate on every side the seeds of disease. When it is known that such have been precisely the circumstances in which a great portion of the emigrants to the western country have fixed themselves, in open cabins that drink in the humid atmosphere of the night through a hundred crevices, in a new and untried climate, under a higher temperature, under the operation of a new diet and regimen, and, perhaps, under the depressing influence of severe labour and exposure, need we wonder that the country has acquired a general character of unhealthiness? With every allowance, however, there can be no doubt, that in the southern and middle regions of this valley, the wide, level, and heavy timbered alluvions are intrinsically more or less unhealthy; neither can it be disguised, that in these situations the new resident is subject to bilious complaints, to remitting fevers, and, more than all, to intermitting fever, or fever and ague. This complaint is the general scourge of the valley.

It is an undoubted fact, explained in different ways and by different theories by the people, that even in the most unfavourable positions, on the lower waters of the Ohio, or even the bayous of the Arkansas or Red River, the emigrant is not so much exposed to disease while his cabin is still under the shade of the unbroken forest. The most dangerous period is, after the trees have been levelled a year or two, and while they are still decaying about the dwelling. This well-known fact would seem to give plausibility to the doctrine, that these deep and grand forests feed their foliage with

an atmosphere that is adverse to the life of man; and that when the timber is cleared away, the miasma, the noxious air, that used to be absorbed and devoured by the redundant vegetation and foliage of the forest, and incorporated with its growth, thus detached and disengaged, and inhaled by the new residents, becomes a source of disease. Another fact, in relation to the choice of a residence, with a view to its salubrity, has been abundantly and unanswerably proved by experience. It is, that bluffs on the margins of wide bottoms and alluvial prairies are more unhealthy than situations in the bottom, or prairie, which they overlook. This fact has been amply demonstrated on the Ohio bottoms and bluffs, on the margins of the alluvial prairies of the upper Mississippi, and, in short, wherever a high bluff overlooks a wide bottom. The inhabitants on the airy and beautiful bluffs that bound the noble prairies of the upper Mississippi, in an atmosphere apparently so pure as to preclude all causes of disease, are far more subject to fever and ague than the people that live below them on the level of the prairies; the same has been remarked of the Chickasaw bluffs, Fort Pickering, or Memphis, Fort Adams, Natchez, Baton Rouge, and the bluffs generally along the great water-courses. Yet, though such is the uniform lesson of experience, so deceptive is the salubrious aspect of these airy hills, which swell above the dun and murky air that seems to lie like a mist over the wide bottoms below them, that most people, in choosing their residence, will be guided by their senses in opposition to experience. We know not whether the theory by which this fact is explained is a sound one or not. It is said that the miasma or noxious air from putrid vegetation and stagnant water in the swamps and bottoms, is specifically lighter than atmospheric air; that, of course, it rises from the plains, and hovers over the summits of the bluffs, here finding its level of specific gravity; and that, were it coloured, it would be seen overlaying the purer strata of air beneath it.—The slopes of the Alleghanies, the interior of Ohio and Kentucky, of Tennessee and Indiana, where the forest is cleared away and the land has been for a sufficient time under cultivation, and where it is sufficiently remote from stagnant waters—the high prairies of Illinois and Missouri, the dry pine woods of the lower and southern country, parts of the plains of Opelousas and Attakapas, considerable portions of Alabama and Mississippi, and generally the open country towards the Chippewayan Mountains may be considered as healthy as any other country. It is a very trite, but a true and important remark, that in proportion as the country becomes opened, cultivated, and peopled, in proportion as the redundance and rankness of natural vegetation is replaced by that of cultivation, the country becomes more healthy.*

* Flint's Western States.

BOOK II.

NATURAL HISTORY.

INTRODUCTORY OBSERVATIONS.

THE discovery of the continent of America was, emphatically, the discovery of a new world. Although possessing, of course, many things in common with the other parts of this globe, and exhibiting proofs not only of a community, but of an identity of origin, and similarity of general character, it presented striking and interesting novelties in every department of nature's works. Many of its productions in the animal and vegetable worlds are not only peculiar, but both beautiful and useful in no ordinary degree, and have done much to enlarge the menagerie, to adorn the shrubbery, and to augment the resources of trade; while, though in some instances latest in attracting regard, the bosom of the earth contains not only ample treasures of metallic wealth, but splendid, if not unique specimens for the cabinet of the mineralogist, and new facts of no little curiosity for the geological inquirer. This extended and engaging field of scientific research has attracted, in part, the observation of which it is worthy; but up to the present period the examination of it is far from being complete in any direction. That portion of this immense continent to which our attention is directed, namely, the territory of the United States, possesses in its full proportion the interest which attaches to the whole; and we shall endeavour to collect, from all the authentic sources to which we have access, the matters of principal importance, so that our pages shall contain a summary view of the existing state of natural science as it respects this portion of the globe. We shall treat of the mineral, the vegetable, and the animal kingdoms, under the titles *Geology*, *Mineralogy*, *Botany*, and *Zoology*.

CHAPTER I.

GEOLOGY.

CONSIDERING the comparatively recent date of geology as a European science, it is not surprising that earlier attention was not paid to it in America. The first considerable attempt towards a scientific view of the character and relations of the strata in the United States was made by Mr. Maclure, a short time previous to the year 1812. His work, though small, and necessarily general in its statements, was a very valuable commencement, and has served both as a guide for subsequent inquirers, and a kind of *carte blanche*, on which their corrections or their discoveries might be inscribed. The field of geological research having been so well opened, the number of these subsequent labourers has been by no means small, and their investigations have been conducted with much skill and success. It has been our endeavour, in the necessarily condensed account we have prepared of the geology of the United States, to avail ourselves of the most recent information, and to illustrate this interesting subject by a map as accurate and complete as the fragments of knowledge in this department would enable us to compile. We have added such other drawings as appeared most material.

In order to obtain a view of the general geological formation of the territory of the United States, it will be advantageous to recall the features of its physical geography—the Apalachian Mountains on the east, with the slope from them to the Atlantic Ocean; the Chippewayan Mountains to the west, with the valleys intervening between them and the Pacific Ocean;^a and the extended valley between these elevated ranges, with the Ozark Mountains dividing it in the centre, and the Black Mountains occupying its north-western angle. The geological structure of the country is intimately connected with these natural features.

To begin with the Chippewayan, as by far the most elevated range^b. The summits of this chain of mountains are formed entirely of primitive rocks, and almost

^a Observations on the Geology of the United States by W. Maclure.

^b See James's Expedition to the Rocky Mountains, vol. iii.

exclusively, not merely of the granitic family, but of granite itself. The primitive clay-slate and limestone appear to be entirely wanting, together with mica-slate, while gneiss occurs in small quantity, and the granite passes into it by imperceptible gradations. As many members of the primitive class are here absent, the transition rocks of the Wernerians are altogether so. Immediately upon the granite rests a red and saline sandstone; and this through the whole length of the mountain chain, so far as it has been examined, without the intervention in any case of any other rock. We discover here, therefore, comparatively few traces of that magnificent profusion of animal and vegetable life, which in other parts of the globe has reared mountains of limestone, clay-slate, and those other aggregates, which if not entirely, are often in a great measure made up of the exuviae of living beings.

The western boundary of this formation of sandstone corresponds to the side of the easternmost granitic ranges. From the Platte towards the south, the sandstone increases in width, and on the Canadian it extends more than half the distance from the sources of that river to its confluence with the Arkansa. It consists of two members. 1. *Red sandstone*.—This rock, which is the lowest of the horizontal or flœtz rocks met with in this part of the country, is very abundant in all the region immediately subjacent to the mountains. It occurs at intervals along their base, reposing against the primitive rocks in an erect or highly-inclined position. It varies in colour from bright brick-red to dark brown, and is sometimes found exhibiting various shades of yellow and grey; it is, however, almost invariably ferruginous; and the predominance of red in the colouring certainly entitles it to the distinctive appellation of red sandstone. The lowest part of the stratum has frequently least colour, and is also the most compact and hard. This is not, however, invariably the case; for in the neighbourhood of the Platte, that part of it which lies immediately upon the granite is white, and contains beds of coarse conglomerate or puddingstone. At the lowest points which could be examined, are found embodied large oval or irregular masses of hornstone, usually of a yellowish white or bluish colour; and near the surface of these masses, are found the few well-marked organic relics the stratum can be said to contain. Higher up the rock becomes much softer, and usually of a browner colour. It is disposed in immense horizontal laminæ or strata, which, when broken transversely, exhibit some tendency to separate into fragments of a rhombic form. The character which most particularly distinguishes this rock from the old red sandstone of Werner, pointed out by Maclure in New York and New Jersey, appears to be the constant accompaniment of gypsum and muriate of soda. 2. *Argillaceous or grey sandstone*. Immediately above the red sandstone, where any rock rests upon it, a grey or yellowish-white sandstone is found, which is the second variety. It most frequently contains a large proportion of argillaceous earth in the cement, and has a more or less slaty structure. The line of separation

metwixt the two is often manifest and well defined, and in other instances they pass by imperceptible gradations into each other. The upper or grey sandstone is usually more compact and homogeneous than the red; it breaks, like the former, though more rarely, into large cubic or rhombic masses, which, on account of the more compact texture of the stone, retain their form longer than those of the other variety. The precipices formed by both are often lofty and perpendicular; but the projections and angles of the red are more worn and rounded than those of the grey. The narrow defiles and ravines which the streams of water have excavated, are less tortuous when they are made entirely in the grey sandstone than in other instances; and the springs of water flowing from it are more free of mineral impregnations than such as are found in the other variety.

The sandstone formation just described, though it must be supposed to have been at one time horizontal and uniform, is now found in a state of entire disruption and disorder. This may be best described, perhaps, by supposing oneself to be approaching the mountains from the valley of the Mississippi. The surface of the sandy plain rises perceptibly towards the base of the mountains; and becoming constantly more and more undulating, is at length broken, disclosing some cliffs and ledges of micaceous sandstone. This sandstone occurs in horizontal strata, sometimes divided by the beds of the streams, and forming low ridges parallel to the mountains. They are separated from the first range of primitive by more elevated cliffs of a similar sandstone, having its strata in a highly inclined position. Behind these, occur lofty but uninterrupted ranges of naked rocks, destitute of any covering of earthy or vegetable matter, and standing nearly perpendicular. At a distant view, they present to the eye the forms of walls, towers, pyramids, and columns, seeming rather the effect of the most laborious efforts of art, than the productions of nature. When surveyed from the more elevated summits of the first granitic range, these immense strata of sandstone standing on edge, and sometimes inclining at various angles towards the primitive, resemble the plates of ice often seen thrown into a vertical position in the eddies and along the banks of rivers. The position of the strata of sandstone varies in the distance of a few miles from nearly horizontal to an inclination of more than sixty degrees, and that without any very manifest change of character, or the interposition of any other stratum. The laminæ most distant from the primitive, occupying the eastern sides of the first ridges, though lowest in actual elevation, may with propriety be considered the uppermost, as resting on those beyond. At the level of the surface of the great plain, they sink beneath the soil, and in the neighbourhood of the river Platte they are no more seen. This tract of sandstone, which skirts the eastern boundary of the Chippewayan Mountains, and appears to belong to that immense secondary formation which occupies the valley of the Mississippi, abounds in scenery of a grand and interesting

character. The angle of inclination of the strata often approaches 90° , and is very rarely less than 45° . That side of the ridges next the primitive appears to have been broken off from a part of the stratum beyond, and is usually an abrupt and perpendicular precipice, sometimes even overhanging and sheltering a considerable extent of surface; the face of the stratum is usually smooth and hard, and both sides are alike destitute of soil and verdure. Elevations of this description are met with varying from twenty to several thousand feet in thickness. Neither are they by any means uniform in height; some of them rise, probably, three or four hundred feet; and considering their singular character, would appear high, were they not subjected to an immediate and disadvantageous comparison with the stupendous Andes at whose feet they are placed. Their summits in some instances are regular and horizontal, and are crowned with a scanty growth of cedar and pine. Where the cement and most of the materials of the sandstone are silicious, the rock evinces a tendency to break into fragments of a rhombic form; and in this case the elevated edge presents an irregularly notched or serrated surface. Sandstones consisting of silex with the least intermixture of foreign ingredients, are the most durable; but in the region of which we speak, the variations in the composition, cement, and characters of the sandstone are innumerable; clay and oxide of iron enter into its composition in considerable proportions, and render it unfit to withstand the attacks of the various agents whose effect is to hasten dissolution and decay. Highly elevated rocks of this description may well be supposed in a state of rapid and perceptible change. The sharp angles and asperities of surface which they may have originally presented are soon worn away; the matter constantly removed by the agency of water from their sides and summits is deposited at their feet; their elevation gradually diminishes, and even the inclination of their strata becomes at length obscure or wholly undiscoverable. This appears to have been a part of the process by which numerous conical hills and mounds have been interspersed among the highly inclined naked rocks above mentioned; they are often clothed with considerable verdure to their summits, and add greatly to the beauty of the surrounding scenery. The contrast of colours in this rude but majestic region often produces the most brilliant and grateful effects. The deep green of the small and almost procumbent cedars and junipers, with the less intense colours of various species of deciduous foliage, acquires new beauty from being placed as a margin to the glowing red and yellow seen on the surfaces of many of the rocks. The sandstone along the base of the mountains, though apparently not very recent, contains the remains of marine animals and plants, and embraces some extensive beds of puddingstone.

Overlying the red sandstone, southward of the Arkansa, are rocks of basaltic origin. They present a striking contrast, by their dark colour, by the vastness and irregularity of their masses, to the smooth, light, and fissile sandstone on which they

rest. Sometimes they are compact and apparently homogeneous in their composition, and in many particulars of structure, form, hardness, &c. more analogous to the primitive rocks than to those recent secondary aggregates with which they are associated. In other instances, black and shapeless masses of porous and amygdaloidal substances are seen scattered about the plains or heaped in conical masses, but having no immediate connexion with the strata on which they rest. Most of the rocks belonging to this class were observed in the neighbourhood of the sources of the Canadian; and may be distinguished into two kinds, referable to the two divisions called greenstone and amygdaloid.

1. *Greenstone*. It appears in this district under almost every variety of form and character noticed by mineralogists. Sometimes it is nearly or quite free from any intermixture of hornblende, is of a fine dark green colour, and closely resembles some varieties of serpentine; sometimes its colour is a dull grey, graduating into brown and black of various shades and intensities. It forms numerous conical hills, of considerable elevation, scattered without order, or grouped in various directions. These hills are usually of a regular and beautiful form. The great plain on which they repose is elevated, and destitute of timber or water, but ornamented with a carpet of thick and verdant grasses; and the hills, though steep and high, are sometimes smooth and green to the summit, the surface on all sides being unbroken by trees or rocks, and covered with thick turf. The whole forms a scene of singular beauty. "During our journey across the district now under consideration, says Dr. James, we had constantly occasion to admire the freshness and abundance of the grasses and other herbaceous plants. The plains of the Platte and Arkansa we had seen brown and desolate, as if recently ravaged by fire; but here we passed elevated tracts, where, for many miles, we could find no water for our own necessities, yet the vegetation possessed the freshness of spring in the most fertile regions." But the conic hills just mentioned are not the only form under which the greenstone appears. It sometimes rises in low irregular ridges, extending a considerable distance, and sloping on both sides into the level of the plain. In the narrow channels which the streams of water have sunk in it, may be seen perpendicular precipices of great elevation, but the valley between them is usually almost filled with large broken masses of the rock, which frequently exhibit a prismatic form. It falls readily into large masses, but seems strongly to resist that progress of disintegration which it must undergo before it can be removed by the water. The face of the perpendicular precipices is almost invariably marked by distinct and large seams running nearly parallel to each other, and at right angles with the horizon. Following the water-courses, which are sunk a considerable distance below the surface, the line of separation from the sandstone on which the greenstone rests at length becomes visible.

2. *Amygdaloid*, a porous or vesicular rock, of a very dark grey, greenish or black colour, usually found near the greenstone, but sometimes in connexion with the sandstone. In its ultimate composition it resembles greenstone, but there were never seen in it such large fragments of felspar and scales of mica as were observed in that rock. The amygdaloidal cavities which every where penetrate this rock are of various sizes, some of them appearing like bubbles which have been formed in a semi-fluid mass, and afterwards lengthened and variously distorted by the motion of the contiguous matter. Near the surface they contain a soft white or yellowish-white substance, very different from the rock itself, usually a soft chalk-like carbonate of lime. This gives the recent surface a mottled appearance; but on surfaces which have been for some time exposed to the air, this soft substance has been removed, and the pores and vesicles are found empty. Amygdaloid does not appear to occupy any very great extent of the country near the mountains. It was not met with imbedded in, or surmounted by, any other rock. Like the greenstone, it forms conical hills, which sometimes occur in deep water-worn valleys, bounded on both sides by perpendicular walls of sandstone; it is likewise seen in the high plains, sometimes in the form of narrow and crooked ridges, apparently following what were anciently the beds of small brooks. When either of the two rocks last mentioned occur, it is not uncommon to find detached masses of a stone somewhat resembling the pumicestone of commerce. It is usually of a faint red or yellowish-white colour, but sometimes it is brown, or nearly black. It feels less harsh than the pumicestone which is used in the arts, and seems to consist in a great degree of clay. It appears to be entirely similar to the substance brought down the Missouri by the annual floods, and by many considered as a product of pseudo-volcanic fires, said to exist on that river. With regard to the soils resting upon the rocks of this trap formation, it may be worthy of remark, that gravel and water-worn pebbles rarely occur, except in situations where it is easy to see that they may have been derived from the substratum of sandstone. Pieces of charred wood were found in the sandstone underlying the trap rocks; but the travellers of Major Long's party did not observe any thing analogous to the whin-dykes of Europe, nor do they notice an altered character in the trap and sandstone at their junction.

Before we advert to any other object in the field we are now viewing, the valley immediately to the eastward of the Chippewayan range claims our attention, on account of its close geological connexion with those mountains. We have seen already that the sandstones of this region, diminishing in their elevation as they recede from the granite, dip at a moderate angle under the bed of the valley. After they are lost sight of, the valley itself consists of an immense accumulation of sand, the apparent debris of the mountains. The soil to an unknown depth is constituted of gravel made up of rounded granitic fragments, varying in dimensions from the size

of a six-pound shot to finish sand. This great mass of granitic fragments, evidently brought down by the agency of water from the sides and summits of the mountains, slopes gradually from their base, and appears, as far as examinations have extended, to correspond, in some measure, to the elevation and extent of that part of the mountains opposite which it is placed. The minute particles derived from the quartzose portions of the primitive aggregates, being least liable to decomposition, have been carried to the greatest distance, and now form the almost unmixed soil of the eastern margin of the great sandy desert: the central portions are of a coarser sand, with which some particles of feldspar and mica are intermixed; nearer the mountains, pebbles and boulders become frequent, and at length almost cover the surface of the country. It is probable that many parts of this extensive desert may differ from that traversed by the Platte, in having the surface more or less covered with horizontal strata of sandstone and conglomerate, instead of loose sand and pebbles; indeed, there are many appearances indicating that a formation of this kind formerly extended down the Platte much farther than at present. Towards the north the sands continue to the margin of the Black Mountains; and below these still farther to the east, until met by some more recent deposits intervening between them and the Ozark range. From the strong saline impregnation and the brick-red colour of the streams, especially below the Arkansa, there is reason to suppose that the red or saline sandstone is continued at no great depth under the sand to near the mouth of the Canadian river.

Let us now look at the next most considerable mountain range, the Apalachian; in geological structure, as well as in other respects, differing widely from that we have just been contemplating. A large portion of these mountains, the whole of their eastern front, is composed of primitive rocks, comprehending both the granitic family and its associated strata of clay-slate and limestone. In New England the rocks of this class constitute the sea-coast, and, with some exceptions, extend inwards to the St. Lawrence, so as to form the general aspect, as well as the most elevated parts of the country. Southward of the Hudson the edge of the primitive follows the general contour of the mountains, at a considerable but variable distance from the sea, to their termination, and until it meets more recent deposits at the extremity of the mountain range. The breadth of this primitive belt is very unequal. It occupies but a small part of the country, where it passes through the states of Pennsylvania and Maryland, in which the highest part of the range of mountains to the west consists of transition, with some intervening vallies of secondary strata. In Virginia, the primitive increases in breadth, and proportionally in height, constituting the greatest mass, as well as the most elevated points of the mountains in the states of North Carolina and Georgia. Besides this range, there is a great mass of primitive on the west side of Lake Champlain,

TOPOGRAPHY OF

having that lake and Lake George for a boundary on the east, joining the primitive in Canada to the North and North-west, and following a line from the Thousand Islands in St. Lawrence, running nearly parallel to the Mohawk river, until it meets Lake George as a south-west limit. This mass of primitive rocks runs across the Mohawk at the Little Falls, and near to Johnstown, where it is covered by limestone; it occupies all the mountainous country between Lake Champlain, the St. Lawrence, and Lake Ontario.

In general, the primitive rocks run from a north and south to a north-east and south-west direction, and dip generally to the south-east at an angle of more than forty-five degrees with the horizon; their highest elevation is towards their north-western limit, whence they gradually descend to the south-east, there being covered by more recent strata; and the greatest mass, as well as the highest mountains, consisting of primitive rock, is found towards the northern and southern extremities of the range. The mountains of this formation generally consist of detached masses, with rounded flat tops and a circular waving outline, as the White Hills to the north; or conically waving with small pyramidal tops, as the peaks of Otter, and the ranges of hills to the south. Granite in large masses forms but a small part of this formation, and is found indifferently on the tops of mountains and in the plains; it is both large and small grained, is mixed occasionally with hornblende and talc, and contains, as in Europe, rounded masses of a rock consisting of hornblende and feldspar, in small grains, disseminated through it; it generally divides vertically into rhomboids, and, except in some very small grained varieties, there is no appearance of stratification. When found in low situations, as in the interior of South Carolina and Georgia, it is frequently so far decomposed as to have lost the adhesion of its particles, to the depth of thirty or forty feet below the surface; each crystal is in its place, and the whole looks like solid granite, while you may take it up in handfuls like sand and gravel. Gneiss extends perhaps over a half of this formation, (though some writers have taken a lower estimate,) and includes in a great many places beds from three to 300 feet thick of a very large grained granite, which run in the same direction, and dip as the gneiss does; it is in those beds generally that the emerald, phosphat of lime, tourmaline, garnet, cymophane, octahedral iron ore, graphic granite, &c. &c. are found. These beds are mixed, and alternate occasionally in the same gneiss, with the primitive limestone, the beds of hornblende and hornblende slate, serpentine, magnetic iron ore, and feldspar rocks. In some places the gneiss contains so much mica as to run into mica slate; in others, large nodules of quartz or feldspar; in others hornblende takes the place of the mica; "in short, I scarcely know any of the primitive rocks," says Mr. Maclure, "that may not occasionally be found included in the gneiss formation." Primitive clay-slate is not abundant, but the granular limestone is so, and wherever found is observed to be the

uppermost in the series of primitive rocks. In this region hornblende rocks, porphyry, and serpentine are not wanting, and primitive trap or greenstone occurs abundantly. Several dykes are mentioned by Mr. Hitchcock^c as deserving of more minute investigation. It has been observed that the granite by no means generally constitutes the most elevated parts of this region. From the highly crystalline gneiss rock at Philadelphia, there is a gradual ascent, across strata more and more recent, to the rocks of the coal formation, about the summit of the Alleghanies; and some of the granitic mountains of New England are far surpassed in elevation by the neighbouring hills and ridges of mica slate, talcose rocks, or even more recent aggregates. Below the Hudson, where the primitive rock is no longer bounded by the sea, it is in immediate contact, through its whole length, with secondary and tertiary beds, of which we shall have occasion to speak when we refer to the Atlantic Slope. On the other side, an immense body of transition strata, according to Werner, reposes on the primitive. These are to be traced on the eastern side of Lake Champlain, to within a short distance of New York, whence they stretch in a line corresponding with the general direction of the mountains to their southern extremity, the whole way constituting the north-western boundary of the primitive rocks.

The breadth of the transition district, like that of the primitive, is variable. Narrow towards the Gulph of Mexico, it widens gradually towards the north-east, till it reaches the river Hudson. From its upper portion it sends off a considerable arm, penetrating for several hundred miles into the granitic region, or overlying it, but running parallel with the principal body. After the primitive it forms some of the highest mountains in the range, and appears to be both higher and wider to the west in the states of Pennsylvania, Maryland, and part of Virginia, where the primitive is least extended and lowest in height. It contains all the varieties of rocks found in the same formation in Europe. It is generally broadest where the primitive is narrowest, and vice versa; its breadth varying from twenty to one hundred miles: the stratification runs from a north and south to a north-east and south-west direction, dipping generally to the north-west at an angle in most places under forty-five degrees with the horizon; on the edge of the primitive it deviates in some places from this general rule, and dips for a short distance to the south-east. The most elevated ground is on the confines of North Carolina and Georgia, along the south-east limits to Magotty Gap, thence descending towards the north-west until it meets the secondary; from Magotty Gap north-easterly, the highest ground is on the north-west side, sloping gradually towards the primitive, which ranges along its south-eastern boundary. The outline of the mountains of this formation is almost a straight line, with few interruptions, bounding long parallel

^c Silliman's Journal, vol. vii.

ridges of nearly the same height, declining gently towards the side where the stratification dips from the horizon, and more precipitous on the opposite side, where the edge of the stratum breaks out to the day.

This formation is composed of the following rocks: viz. a small-grained transition limestone, of all shades of colour, from white to dark blue, and in some places intimately mixed with strata of greywacke slate, with limespar in veins and disseminated, and in many places with small grained particles, so as to put on the appearance of a sandstone with excess of lime cement. This occurs in beds from fifty to five thousand feet in width, alternating with greywacke and greywacke slate. Near the borders of the primitive is found a siliceous aggregate, having particles of a light blue colour, from the size of a pin's head to an egg, disseminated in some places in a cement of a slaty texture, and in others in a quartzose cement; a fine sandstone cemented with quartz, in large masses, often of a slaty structure, with small detached scales of mica intervening; a rock not far from the borders of the primitive partaking both of the porphyry and the greywacke, having both feldspar crystals and round pebbles in it, with a cement of a kind of dull chlorite slate in excess; another, though rarer, with pebbles and feldspar crystals in a compact petrosiliceous cement; and a great variety of other rocks, which, from their composition and situation, cannot be classed but with the transition. The limestone, greywacke, and greywacke slate, generally occupy the valleys, and the quartzose aggregates the ridges, amongst which is what is called the country burr stone, or mill-stone grit, which must not be confounded with another rock, likewise denominated mill-stone grit, which is a small grained granite, with much quartz, found in the primitive formation. There are many and extensive caves in the limestone of this formation, some of which extend underground for several miles, and in which the bones of various animals are found. It is the lowest, and is considered as the most ancient of the rocks containing organized remains, which are those of cryptogamous plants, and animals without sight. The greywacke has been observed to contain impressions of organized remains, but these are usually those of zoophytic animals, and are exceedingly unlike those found so abundantly in the shale of coal formations. Its colours are variable; it is, however, most commonly bluish, black, or dark brown. Between Albany and Pittsfield it is met of a grey colour, and a few miles to the south-east of White-hall, New York, it is bright red. The greywacke appears to form the connecting link between the clay slate and a rock which has been called the old red sandstone, and is usually found intimately blended either with the one or the other. The sandstone to which the name just used is applied, occurs throughout the whole extent of the transition formation, and evidently belongs to the oldest depositions of that rock. It is for the most part distinctly stratified, and in all cases its stratification is inclined. It consists of grains of quartz united by a scanty cement, and

usually more or less rounded, as if by attrition and the operation of currents of water ; their fragments vary in magnitude from the finest sand to boulders of several pounds weight. Among the Alleghany mountains are many extensive beds of pudding-stone, or coarse conglomerate, usually coloured by oxide of iron. It is also to be observed, that this formation of transition sandstone sometimes embraces extensive beds, integrant particles of which have by no means the appearance of having been rounded by attrition. As in the case of almost all the rocks of secondary formation, there appear to have been periods during the time of its deposition when the waters of the superincumbent ocean ceased to throw down the mechanical debris of former rocks, and deposited earthy matter from a state of chemical solution. The old red sandstone contains no beds of bituminous coal, though many of anthracite, and few organized remains.

Of the rocks thus described, the limestone occurs extensively all along the north-western side of the primitive strata; sometimes, it is stated, alternating with granular or primitive limestone, which often graduates, by minute and almost imperceptible differences, into that which is decidedly secondary. If we suppose the whole of the Alleghany mountains of Pennsylvania, Maryland, and the western parts of Virginia, removed to a level with the surface at the base of their eastern declivities, it is probable that their foundation, which would be thus exposed, would be found through their whole extent to be of transition limestone. About twenty miles west of Philadelphia and Harrisburgh, Cove Hill, the north and south mountains, and the other eastern ranges of the Alleghany, all repose upon the same rock. It is seen emerging from beneath the sandstone which forms the body of these mountains at O'Connel's town, and in most of the valleys between the Alleghanies; and we learn from Maclure that it extends to the south and west, nearly to the termination of this range of mountains at the confluence of the Alabama and Tombigbee Rivers, in Mississippi. The clay-slate occurs in the central portions of that extensive field of transition which skirts the western margin of the primitive of New York and New England, and forms the great body of the Catskill Mountains. It is wider and more extensive in the north, occupying much of the surface in Vermont, and the northern parts of the state of New York. In the mountains of Pennsylvania, Maryland, and Virginia, its beds are of great thickness, and form in some instances the prevailing rocks, being, however, almost invariably overlaid by sandstone. The old red sandstone is of very frequent occurrence in the transition district along the whole range of mountains, and is perhaps more frequent and more abundant than any other aggregate. This region also has a considerable mixture of trap, comprehending greenstone, basalt, amygdaloid, and toadstone; but the newer trap rocks are entirely wanting in the whole of the mountain range. It is by no means to be supposed that the primitive and transition rocks observe exactly the limits which have been drawn. They frequently so interlock the one with

the other as to make the drawing of any line of demarcation exceedingly difficult. There are also various large bodies of transition rock thrown to a considerable distance into the primitive region, as is the case particularly with one in the neighbourhood of Boston; while in many instances secondary rocks are found running along the valleys far into the bosom of the mountains. Between the primitive and transition rocks a series of primitive rocks sometimes intervenes, something different from the common primitive, having the structure of gneiss, with little mica, the scales detached and not contiguous, or much feldspar, rather granular than crystallized, mica slate, with small quantities of scaly mica, clay-slate, rather soft, and without lustre, the whole having a dull earthy fracture and gritty texture, partaking of transition and primitive, but not properly belonging to either. There is great variety in the appearance of this rock, as it were an imitation of almost every species of the common primitive rocks, but differing from them by having a dull earthy fracture, gritty texture, and little or no crystallization.

With the edge of the transition strata we approach the western summits of the Apalachian Mountains, or the line from whence they begin to fall towards the Mississippi Valley. Along this line commences a series of secondary rocks, stretching westward to an immense extent towards the Mississippi and the lakes, and constituting one of the most interesting and important geological formations in the United States. Near the summit of the ridge called particularly the Alleghany, the change to secondary begins to appear; without the interposition of any other rock, and without any sudden change of features, the strata of sandstone become nearly horizontal, assuming gradually all the characters of secondary rocks; descending into the valleys, the transition strata again emerge to the light. The same thing happens in the case of the Catskill and other mountains west of the Hudson, their bases being of transition, and their summits crossed with secondary. This secondary region extends unbroken across the whole country to the shores of the lakes, being bounded on the west probably by the river Wabash, and, as you descend the Mississippi, by the more recent formations through which that river flows. It consists of various strata of sandstone, limestone, and clay, generally, but by no means exactly, corresponding with similar strata in this country. Although England has been considered a more advantageous station for examining the secondary strata than any other in Europe, it will by no means serve as a model for America. The strata are thus given by Professor Eaton:—1. Millstone grit; 2. Saliferous rock, probably identical with the saline sandstone of the Chippewyan Mountains; 3. Ferriferous rock; 4. Lias; 5. Geodiferous lime-rock; 6. Cornitiferous lime-rock; 7. Third greywacke. The fifth and sixth of these strata occupy the space of the English oolite, but are stated to be of a somewhat different character. Our green sand, iron sand, and associated marls, may be assigned to the third greywacke; but the chalk, it seems, in Europe no unimportant stratum, is

entirely wanting; nor has a single particle of this substance been found in the whole of the United States; that which has been mistaken for it, and indeed used for it in some respects with success, is ascertained to be native argil, or pure clay. The limestone generally found in this district is of a bluish colour, running through all the shades to a dingy black, having an even rather earthy fracture, and sometimes a schistose structure. The flints found in the secondary limestone in America are generally black, resembling Lydian stone, and in all kind of irregular forms and branches intimately mixed with the limestone. Its greatest elevation is on the south-east boundary, from which it falls almost imperceptibly to the north-west, and mingles with the alluvial of the Mississippi, having a mountain outline, straight and regular. A boundary of long and parallel ranges, of a gradually diminishing height as they approach to the north-west, a stratification almost perfectly horizontal, waving with the inequalities of the surface, distinguishes this from the two preceding formations. Immense beds of secondary limestone, of all shades from light blue to black, intercepted in some places by extensive tracts of sandstone and other secondary aggregates, appears to constitute the foundation of this formation, on which reposes the great and valuable coal formation, which extends from the head waters of the Ohio, in Pennsylvania, with some interruption all the way to the waters of the Tombigbee, accompanied by the usual attendants, slaty clay and freestone with vegetable impressions, &c.; but in no instance yet ascertained covered by, or alternating with any rock, resembling basalt, or indeed any of those called the newest floetz trap formation. One grand peculiarity of this secondary region is the horizontal direction of the strata, which is almost perfect and uniform, no disturbing causes whatever appearing to have acted upon them since their deposition, excepting such as have worn them down from above; and in conjunction with this fact, it is striking to observe that trap rocks are entirely wanting through the whole extent. It results from these circumstances, that individual strata can be traced uninterrupted through many hundreds of miles, and that opportunities of investigation unparalleled elsewhere are afforded.

Having thus examined the two sides of the Mississippi Valley, we may now direct our attention to the region which occupies its centre. In a geological point of view this must be taken to comprehend not merely the Ozark Mountains, but the whole tract of country extending northwards from them to the shores of Lake Superior, bounded on the east by the rivers Wabash and Ohio and the recent deposits of the Mississippi, and on the west by a line drawn from nearly the western extremity of Lake Superior to the western declivity of the mountains.

The Ozark Mountains consist chiefly of secondary and transition rocks, but there are two points at which the primitive makes its appearance.^d About fifteen miles

^d Expedition to the Rocky Mountains, vol. iii. p. 310.

south-east from the hot springs, near the Washita, granite is found *in situ*. "It forms the basis," says Dr. James, "and, as far as we could discover, the whole mass of a small hill, but little elevated above the level of the river; we found it emerging from beneath the soil at several parts of an area two or three hundred acres, but had not an opportunity to trace it to any great distance, nor to observe its connexion with any other rock. The extent of surface which it covers, we believe, cannot be very great." This granite is very soft, and disintegrates rapidly when exposed to the air. It is compounded of greyish-white quartz, yellowish-white feldspar, and an unusually large proportion of mica in variously and brilliantly coloured masses. These large laminæ of mica are white, pearl-colour, yellow, brown, green, and often black, and in some instances are so large and numerous as to exceed in proportion the other ingredients of the aggregate. Talc also enters in large proportion into the composition of this granite. It is indeed sometimes so abundant as to occasion a doubt whether the whole should not be considered a bed of talc, rather than granite. This talc is in tabular masses, two or three inches in diameter, and about half an inch in thickness. Zeolite is also so abundant as sometimes to seem to take the place of the other materials of the granite. The bed of one of the streams which traverse this formation is paved with small crystals of schorl, that of another with native magnet. Sulphuret of iron is disseminated in the rock. Several of the appearances presented by this interesting mass of granite would seem to countenance the opinion that it is of secondary origin, like that mentioned by Saussure as existing near the valley of Valorsine, at Semur en Auxois, and at the city of Lyons. In speaking of the rock at these places, he says, "It could not be doubted, on seeing these heaps of large crystals, that they are the produce of the rain-waters, which, passing through the granite, have dissolved and carried down these different elements, and have deposited them in these wide crevices, where they have formed new rocks of the same kind. The crystals of these new granites are larger than those of the ancient, on account of the repose which the waters enjoyed in the inside of these reservoirs." The granite of the Washita, if it is to be considered as of secondary formation, appears to be much more extensive than any of the kind hitherto known; but many more particulars must be ascertained before this question can be settled. "We are ignorant," says Dr. James, "of the manner of its connexion with any other rock, nor do we know of any formation of primitive granite from which it could, by the action of water, have been derived: one can have no hesitation, however, in considering the Ozark Mountains as a separate system within themselves, and having no immediate connexion with either the Apalachian or the Chippewayan Mountains. May not an extensive range of granite and other primitive rocks have existed at some distant period where the Ozark Mountains now are, containing the vast quantities of the ores of lead, iron, &c. now found in rocks of secondary origin, and even in the alluvial soil? And may not the operations of water,

during many ages, when an ocean rolled over the summits of these mountains, have worn down those primitive rocks, their detritus having been deposited horizontally upon their submarine sides and summits; so that the greater part of their surfaces are now covered by secondary aggregates? Our acquaintance with this range is, however, much too limited to admit of indulgence in such speculations."

Besides the cove of the Washita, another granitic region, according to Mr. Schoolcraft, occurs in the north-eastern extremity of the Ozark Mountains, in the mining district of Potosi. The granite appears about a mile west of St. Michael's, an antique French village, and suddenly emerges from the alluvial soil. "It constitutes," says Mr. Schoolcraft, "the summits of the greatest elevations, and also the depths of the lowest valleys in the district. It is almost exclusively confined, so far as we have observed, to the north-western portion of Madison, and the contiguous parts of Washington county. We suppose the whole area covered by this formation does not exceed 120 or 130 square miles; but we have not observed its southern limits. It may extend in that direction farther than we have reason to believe it does, and may possibly even have a subterraneous connexion with that talcose variety of granite discovered by Dr. James, on the Washita. The marked dissimilarity in the two varieties is not, perhaps, a valid objection to this supposition, when we consider the different aspects which some of the ranges of our American granites assume, examined at distant points."* This granite is without any marks of stratification. Its structure is fine grained. Its colour, which is imparted by the predominance of feldspar, is a flesh red. Both the quartz and mica form but a comparatively small portion of the mass, and the mica exists in the least abundance. Very frequently the latter mineral is entirely wanting through considerable portions of the mass, and the rock is made up wholly of quartz and feldspar. This rock is traversed by veins of greenstone, which are chiefly porphyritic, and in some places beautifully so.

In connexion with the granite of the Washita is found a stratum of clay-slate, and another of transition sandstone, but neither of them of any great extent. Near St. Michael's, Mr. Schoolcraft affirms the existence of the metalliferous or transition limestone. The hot-springs of the Washita issue from the clay-slate, and, if we may judge from the inclination of the strata, and the distance at the surface from the granite of the cove, we may conclude that a very large mass of clay-slate is interposed between the surface of the granite and the point at which the springs rise. This, however, it is not possible to ascertain. The hottest springs on the globe rise from beneath or within the granite, and it is not improbable that this rock may approach near the surface at many points in the Ozark Mountains where it has not yet been uncovered. The slate rock about the hot springs is highly inclined, often flinty

* Schoolcraft's Travels.

in its composition, and, as far as has been hitherto observed, it contains no organic remains. It is traversed by large upright veins, filled usually with white quartz, contrasting strongly in colour with the dark blue of the slate. The mountains contain vast beds of limestone, which, though decidedly secondary, has in many parts so peculiar a crystalline appearance as to be easily mistaken for primitive. The recent fracture is uneven, distinctly crystalline, and much like that of many moderately fine-grained granites. Careful examination shows that in many instances the most minute particles visible under a lens have assumed the rhombic form so common to the carbonate of lime; these crystalline particles vary greatly in size, and are sometimes half an inch across. In the interior of the casts of animal remains, they are sometimes less distinct than in parts of the rock where no such remains are discovered. These vast beds of sparry limestone, made up almost exclusively of deposits from chemical solution, would seem to have been formed during periods when great tranquillity prevailed in the waters from which they were deposited. They alternate with limestones of the common earthy and compact varieties. The sandstones of this small group of mountains appear under almost every variety of character, but in most of them, as far as hitherto examined, are discovered traces of coal, or of those minerals and organic remains which usually accompany it. A conspicuous feature in the sandstones about the central and western portions of the region under consideration, is the great proportion of mica, in large scales, which enters into their composition. Fragments of the sand-rock about the mouth of the Poteau might be mistaken for mica slate. This mica is rarely, if ever, of that dark coloured variety which prevails in the Chippewyan Mountains; and in the other materials of these aggregates there is a manifest want of resemblance to those mountains. Another peculiar variety of sandstone occurs in connexion with the sulphuret of lead, at the old mines of St. Michael, and at many places in that vicinity. This bears apparently the same relation to the common sandstones, as the crystalline limestone above mentioned does to the earthy varieties, and it alternates with and passes into the common rock in a similar manner. Its particles are crystalline, and appear to remain undisturbed in the position in which they were originally deposited from solution in water. Nevertheless the aggregate is manifestly secondary, and embraces the relics of many organized beings, as is common in the other secondary rocks.

There appears reason to think that these mountains are entirely secondary. Compact limestone contains the lead ore, and is here associated with an extensive deposit of fluat of lime. None of this mineral, however, has yet been discovered in this place; the whole of it is in the form of detritus, showing evident marks of abrasion and attrition. Besides several varieties of sandstone, shell limestone and oolite were observed at this point. Though the country stretching northward to Lake Superior becomes more level, and is not distinguished by any considerable physical peculiarities,

its geological and mineralogical character identify it with that which we have just noticed. Numerous specimens of minerals brought from the Upper Mississippi and the Illinois rivers have a peculiar resemblance to similar minerals met with in the territory south of the Missouri. From these resemblances, and the corroborating testimony of all the accounts received concerning that country, rich in mines, which lies along the eastern side of the Upper Mississippi, there is reason to believe that a continuation of the Ozark Mountains, or at least of a region similar in mineralogical features, extends from the confluence of the Missouri northward, to the sources of the Wisconsin and the Ontonagon river of Lake Superior. North of the Missouri the country is very little elevated, but aside from this it appears to possess all the peculiar features of the region we have been considering. The sandstones, the limestones, and other rocks, have a striking resemblance.

Of the Black Mountains, in the north-western part of the Mississippi Valley, only enough is known to mark them out as of a distinct geological structure from the rest of the valley. They appear to consist entirely of sandstone lying horizontally, and to be destitute of any mineral productions of value. The remaining portions of the great valley may now be easily disposed of. In the north, between the Black Mountains and the central district, is a wide tract containing the course of the Missouri, marked by Dr. James as alluvial. The same appellation he gives to a space on the west of the Ozark Mountains, between them and the Chippewyan sands, and to the country on both sides of the Lower Mississippi. We think that the application of this term may admit of considerable modification and improvement, as it seems to us to be sometimes confounded with diluvial, if not with tertiary formations. Such formations appear to exist on the line of the Mississippi, and will engage our attention hereafter.

We must now turn our attention to the region which lies to the eastward of the Appalachian Mountains. The eastern front of this range we have already stated to consist of primitive rocks, and we have mentioned that so far south as the Hudson these rocks reach the sea; from this point they take an inland course, and leave a considerable tract of land between them and the ocean all the way to the Mississippi. On this side there is no appearance of any rocks of the transition class; the primitive terminates abruptly, and through its whole length is skirted by an extensive series of beds of shell-limestone, marl, clay, sand, and gravel, constituting what has been described in our geographical department as the Atlantic Slope. This class of strata begins at Long Island, becomes gradually wider as it extends through the middle and southern states, forms the whole of Florida, and crosses the Mississippi, where it meets the secondary formation of that valley, and sends up a tongue for a considerable distance along the sides of that river. We may here notice the extended granitic ridge which forms the boundary between the primitive and secondary regions, and which has been considered as one of its most remarkable features. It commences as

far south as Georgia, and extends to New York; whence it seems to pass into Long Island, and under the Sound into Connecticut. It is in some places concealed by the soil; but it appears distinctly at the riverfalls, and is particularly rugged where it crosses the Susquehanna. It has been conjectured that this ridge was the ancient line of the seacoast.

The entire region to the eastward of the primitive was long spoken of as alluvial; but a more careful examination has shewn that it comprehends, not only a large extent of tertiary formations, but some which are decidedly secondary. From an elaborate investigation of this district by Dr. Morton, of Philadelphia, more particularly directed to the characteristic features of its organic remains, there appears decisive evidence of this fact. These secondary strata are not, however, calcareous, like those on the west of the Apalachian Mountains; but they consist of beds of sand and clay analogous to the iron sand, green sand, and chalk marl, or gault, of our own country. Dr. Morton calls it the ferruginous sand formation. The tract occupied by it encloses nearly the whole of the marl region of New Jersey, so far, at least, as it has hitherto been explored; though there is reason to believe that this formation occupies a great proportion of the triangular peninsula south of the Raritan river. Much of the ferruginous sand, however, is overlaid by deposits of clay containing lignite, which have been referred, with apparent correctness, to the plastic clay formation. Above these clay beds is an almost uniform covering of grey sand; though in many places the marl, with its peculiar fossils, is found immediately beneath the soil. In Maryland commences a vast deposit of sand and clay, extending along the coast to the Mississippi: this tract abounds with tertiary fossils, which appear chiefly to belong to the upper marine formation of the European geologists. The secondary strata are occasionally met with beneath it, and sometimes approach so near the surface as to be readily identified by their fossils. It is therefore reasonable to suppose that the beds of ferruginous sand extend nearly the whole length of the Atlantic frontier of the United States south of Long Island, though for the most part concealed by the different members of the tertiary class.

In all its localities this formation has been identified by similar genera and species of organic remains, though all the genera do not exist in every locality. The predominant constituents of the varieties of marl are silex and iron. They often contain beds of a dark bluish, tenacious clay; sometimes this clay is mixed with the marl, forming marly clay. Again the marl is seen of a yellowish brown colour, friable, or compact, and filled with green specks of the silicate iron. Some of the greenish varieties are also very compact, rendering it extremely difficult to separate the fossils from their matrix. The friable blue marls often contain a large proportion of mica in minute scales. Other localities present beds of silicious gravel, (turtia? of the French,) the pebbles varying from the size of coarse sand to one or two inches in diameter. These are cemented together by oxide and phosphate of iron, and contain the same

fossils as the earths already described. The most striking instance of this kind is at Mullica Hill, in New Jersey. Similar mineralogical appearances, but without fossils, occur in the lower beds at the Chesapeake and Delaware canal. At the latter place is also found a friable silicious sand, of a bright green colour, answering to the glauconie sableuse of Brongniart: also a fine, pure white sand, with abundance of lignite; and extensive beds of brown and yellow ferruginous sand, more or less argillaceous. Some of the blue marls which effervesce strongly with acids, contain but five per cent. of lime. There are also large beds of calcareous marl, containing at least thirty-seven per cent. of lime, the remainder being silex, iron, &c.: a hard, well-characterized, sub-crystalline limestone, filled with zoophytes. All these pass by insensible degrees into each other, exhibiting an almost endless variety of mineralogical character. The mineral substances found in these beds are, iron pyrites in profusion; chert, (in the calcareous beds,) amber, retinasphalt, lignite, and small spherical masses of a dark green colour and compact texture, apparently analogous to those found in the green sand of France. Mr. Hayden suggests that these may be the discolites of the Abbé Fortis; their structure, however, does not appear to be organic, although they often have a shark's tooth, or a small shell, for a nucleus. Larger spherical bodies also occur, resembling the nodules of clay iron-stone so common in some parts of England. One of the most abundant mineral products of these beds is lignite. It is found at the deep cut of the Chesapeake and Delaware canal in almost every variety, from charred wood to well-characterized jet. Sometimes it is in small fragments, and again it occurs in large masses, presenting the trunks and limbs of trees thirty feet in length, and perforated in every direction by the teredo. That these lignites belong not to the tertiary deposits, but to the ferruginous sand, appears to be the more probable, inasmuch as the lignite beds of Delaware are found to be subordinate to strata replete with extinct multilocular univalves, and other secondary remains. The extensive occurrence of this formation, so closely connected with chalk in Europe, renders the absence of the chalk itself still more remarkable.

The tertiary formations, as we have just seen, occur largely on the Atlantic Slope, but they are by no means confined to it: they overlies the secondary strata to a great extent on both sides of the mountain chains. Marly clay (London clay) is one of the most universal of all visible strata. It is the common clay of all North America. Lieut. A. B. Eaton traced it from the mouth of the Ohio to New Orleans, mostly covered with Bagshot sand. It always effervesces with acids when dry, and always contains muriate of lime; consequently all wells dug in it yield hard waters. Sulphate of magnesia is not uncommon in it, and in some localities it contains small quantities of muriate of soda. Bagshot sand and crag are next in extent to the marly clay, and generally overlies it. The sand and crag often pass into each other, and often alternate; but if they are to be treated as distinct, probably the crag should be

considered as uppermost. The plastic clay formation is stated to appear very distinctly on the west side of Lake Champlain, and at various points, from Martha's Vineyard to the eastward of Long Island, to Florida and the Mississippi. The silicious limestone of Georgia is asserted to be decidedly contemporaneous with the calcaire silicieuse of the Paris basin. In Virginia the marly or London clay is found, and the sands of the Upper Marine formation are conceived to occur in the same state, and in Staten Island.

Of the geology of the region west of the Chippewayan Mountains nothing certain is known. The chains which stretch nearer to the Pacific are lofty, and are presumed to be primitive. Mr. Scrope represents the mountains which border the Pacific Ocean as volcanic.

Having taken this general survey, before we proceed to further details it may be desirable to make a few observations respecting the influence of American geological facts upon existing geological theory. It was soon found that geological researches were made with much greater facility in America than in Europe, especially in the region of the secondary strata. The immense extent over which they could be traced, the undisturbed condition in which they are found, and their generally horizontal position, afforded valuable facilities for efforts of generalization and system. The absence of the newest floetz-trap rocks, (which partially and irregularly cover all other formations, thereby breaking the continuity of the strata,) and of the effects of the violent convulsions so frequent in the vicinity of this disputed formation, unquestionably facilitate geological researches. A second cause, producing much more extensive effects, may perhaps be found in the greater number and magnitude of the changes that have been effected in the different classes of rocks on the European continent, since their original formation; either by the effect of water during a long course of time, partially washing away the superincumbent strata most liable to decomposition, and leaving the more hard and durable parts of the same rocks in their original positions; or by the long and continual action of rivers wearing deep beds, and exposing to view the subordinate strata, giving to the whole the appearance of a confused and interrupted stratification, though it might have been uniform and regular in its original state. Rivers, likewise, by undermining, throw immense masses out of their place, and create a disorder and confusion not easily unravelled. The rivers in North America have not generally cut so deep into the different strata, either in the mountains, or during their course through the level country, as materially to derange the stratification; nor do we find those immense and inaccessible precipices, which render the prosecution of geological researches almost impossible. Broken detached masses of one formation covering the tops of mountains, with their sides or foundation composed of different classes of rocks, seldom occur; and where any irregularity or apparent confusion takes place, the vicinity generally admits of a sufficient examination of

the surrounding strata, to account for the accident without affecting the general arrangement. A third cause of the facility of geological observations on this continent, may be traced in the fact that the whole continent east of the Mississippi follows the arrangement of one great chain of mountains. Europe, on the contrary, is formed of five or six chains of mountains, all following different laws of stratification, and frequently interrupting each other; which increases the difficulty of arrangement, and augments the apparent confusion.

The effect of the opening of this field of observation has been striking and important. It has been to confound and set at naught every previous attempt at the determination and arrangement of general strata. American geologists may be said to be continually laughing at the mundane systems which men of science on this side of the Atlantic have been constructing from their survey of such a mere corner of it as the continent of Europe; and European geologists themselves have acknowledged that general strata must be determined in America. The absence of the chalk forcibly illustrates this; the chalk being not only a very prominent feature in our geological structure, but the grand point of division between the secondary and tertiary formations. The English oolite has not its fellow in America. It has come to be affirmed by Professor Eaton, that the old red sandstone is not a general stratum, and to be questioned whether primitive clay slate has any existence at all;^e while Mr. Maclure informs us, that, though the primitive formation contains all the variety of rocks found in the mountains of Europe, yet neither their relative situation in the order of succession, nor their relative heights in the range of mountains, correspond with what has been observed here. The order of succession from the clay slate to the granite, as well as the gradually diminishing height of the strata, from the granite through the gneiss, mica slate, and hornblende rock, down to the clay slate, is so often inverted and mixed, as to render the arrangement of any regular series impracticable. It would have made amends for this subversion of existing systems, if men of science in America had been able to form any satisfactory generalization themselves. This is as yet, however, far from being the case. With much of positive assertion, every thing is controversy and confusion; every thing, at least, but the observation and accumulation of facts, which is going on with some rapidity and diligence, and which, it would seem, must be carried to a much greater extent before any hope of successful generalization can be entertained. Notwithstanding all the uncertainty we have described, however, some important general facts are either confirmed or established, and of these we shall endeavour to give a condensed account.

The primitive, and,^f perhaps it may be added, the transition rocks of the United States, bear an almost perfect resemblance, in structure and general character, to

^e The existence of primitive clay slate is distinctly affirmed by Mr. Hitchcock on the Connecticut, and by Professor Dewey. *Silliman's Journal*, Vol. II. p. 248, Vol. VI. p. 36.

those of Europe. They constitute the whole mass of the mountains, with the same declination, irregularity, and apparent disruption and dislocation of the strata. The granite is in beds and veins, with only such equivocal appearances of stratification as have been detected elsewhere. The Apalachian resembles several of the European chains of mountains, in having the secondary formation principally on the north-western side. Among the peculiarities of this primitive range is its comparatively low elevation; only one portion of it, the White Hills, reaching six thousand feet above the level of the sea, a far lower point than is reached by any other considerable mass of primitive rocks at present known. Connected with this is also the very low level at which the same rocks are found in the northern states, especially on the banks of the river Hudson, where the tide runs between precipitous banks of granite, greenstone, &c., entirely through the mass of primitive and transition rocks into the secondary, to a distance of a hundred and fifty miles. It arises from the same geological character of this range, that the ridges of the mountains do not form the dividing high lands of the waters; but that in many cases, as with the rivers which discharge themselves into the Chesapeake, the streams rise beyond the mountains, and find avenues which permit them a clear passage, often at right angles to the chain which they penetrate. The immense depth of some of the lakes, ascertained to be in some places as much as twelve hundred feet, and in others being hitherto unfathomable, belongs to the same class of indications. We feel constrained to associate with these circumstances the comparatively small quantity of unstratified rocks found in this region. We have already seen that one half the primitive is gneiss; and when allowance is made for mica slate, talc slate, and other stratified primitive rocks, it will follow that granite is but in small proportion. Porphyry and serpentine do not appear to be abundant. Greenstone occurs, as also basalt; but, as we have seen, the newer trap rocks are almost if not entirely wanting. It remains to be added, that no traces whatever exist of volcanic action, that is to say, of recent volcanic action, or of any other than must have occurred if greenstone and granite are of igneous origin. All these circumstances may be considered as confirming the supposition that the mountain masses generally have been upheaved by convulsive action; and as indicating that the impulses which raised the Apalachian chains were, if not in the first instance less powerful, yet less frequently repeated, than in most other cases. Hence the small elevation of their highest summits; hence the deep notches which allow the transverse passage of great rivers; and hence also that remarkable tide-valley occupied by Hudson's River. The Chippewayan Mountains, contrasted as they are with the Apalachians in their elevation and other physical features, are equally so in their geological structure. The unstratified rocks almost exclusively prevail; the newest floetz-trap rocks also are found; and every indication of violent action of greater power or more frequent repetition.

Another general fact respecting the newer trap formations is strongly indicated by

their entire absence from the immense secondary formation of the United States, taken in connexion with the horizontal position and undisturbed character of the stratification. Here is no dislocation, and no trap. Wherever there is trap, as in Europe, there is dislocation and disorder. It seems to follow, therefore, that trap rocks have had their origin, not in the causes which formed the secondary strata, but in those which have disturbed them.

Whether the vastness of the field which is open to geological inquiry in the United States will materially facilitate the determination of general strata, or whether, beyond the primitive, there are really any such, may be a matter of doubt. We now turn to the more certain and yet disputed ground of the actual arrangement of the American strata themselves. The cutting of the canal from Albany to Lake Erie afforded a valuable opportunity for investigation, of which Professor Eaton has diligently availed himself, in order to form a scheme of general strata such as the structure of the North American continent would indicate; and we cannot do better for the information of our readers, than present to them his views on the subject.^f In doing so, it will be necessary to allow him to employ his own nomenclature, which, however, will be easily understood, whether adopted or not.

Geological Nomenclature, exhibited in a Synopsis of North American Rocks and Detritus, by Professor Amos Eaton.

CLASSES OF ROCKS.

CLASS I. *Primitive Rocks*; being those which contain no organic relics or coal. See Fig. 1, 2, 3, 4, 5, and 6.

CLASS II. *Transition Rocks*; being those which contain marine organic relics only, and, in some localities, anthracite coal. See Fig. 7, 8, 9, 10, 11, and 12.

CLASS III. *Secondary Rocks*; being those which contain, in some localities, dry-land or fresh-water organic relics, as well as marine or bituminous coal. See Fig. 13, 14, 15, 16, 17, 18, and 19.

CLASS IV. *Superincumbent Rocks*; being those hornblende rocks which overlay others without any regular order of superposition, supposed to be of volcanic origin. See Fig. 20.


CLASSES OF DETRITUS.




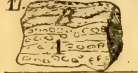




CLASS V. *Alluvial Detritus*; being those masses of detritus which have been washed into their present situation. See Fig. 21, 22, 23, and 24.

CLASS VI. *Analluvial Detritus*; being those masses of detritus which have not been washed from places where they were first formed by the disintegration of rocks. See Fig. 25 and 26.

^f See two papers by Professor Eaton, in Silliman's Journal, Vol. XIV.

TOPOGRAPHY OF

	GENERAL STRATA AND SUBDIVISIONS.	VARIETIES.	IMBEDDED AND DISSEMINATED.
12 	SECOND GRAYWACKE. B. <i>Rubble.</i> A. <i>Compact.</i>	Red sandy, (old red sandstone ?) Honeslate. Grindstone.	Manganese. Anthracite.
11 	METALLIFEROUS LIMEROCK. B. <i>Shelly.</i> A. <i>Compact.</i>	Birdseye marble.	
10 	CALCIFEROUS SANDROCK. B. <i>Geodiferous.</i> A. <i>Compact.</i>	Quartzose. Sparry. Oolitic.	Semiopal. Anthra- cite. Barytes. Concentric concretions.
9 	SPARRY LIMEROCK. B. <i>Slaty.</i> A. <i>Compact.</i>	Checkered rock.	Chlorite. Calc spar.
8 	FIRST GRAYWACKE. B. <i>Rubble.</i> A. <i>Compact.</i>	Chloritic.	Milky quartz. Calc spar. Anthracite.
7 	ARGILLITE. B. <i>Wacke slate.</i> A. <i>Clay slate.</i>	Chloritic. Glazed. Roof slate. Red. Purple.	Flinty slate. Anthracite. Striated quartz. Milky quartz. Chlorite.
6 	GRANULAR LIMEROCK. B. <i>Sandy.</i> A. <i>Compact.</i>	Verd-antique. Dolomite. Statuary marble.	Tremolite. Serpentine. Chromate of iron.
5 	GRANULAR QUARTZ. B. <i>Sandy.</i> A. <i>Compact.</i>	Ferruginous. Yellowish. Translucent.	Manganese. Hematite.
4 	TALCOSE SLATE. B. <i>Fissile.</i> A. <i>Compact.</i>	Chloritic.	Octahedral crystals of iron ore. Chlorite.
3 	HORNBLENDE ROCK. B. <i>Slaty.</i> A. <i>Granitic.</i>	Greenstone. Gneis- soid. Porphyritic. Sienitic.	Granite. Actynolite. Augite.
2 	MICA SLATE. B. <i>Fissile.</i> A. <i>Compact.</i>		Staurotide. Sappare. Garnet.
1 	GRANITE. B. <i>Slaty, (gneiss.)</i> A. <i>Crystalline.</i>	Sandy. Porphyritic. Graphic.	Schorl. Plumbago. Steatite. Diallage.

	GENERAL STRATA AND SUBDIVISIONS.	VARIETIES.	EMBEDDED AND DISSEMINATED.
20. 	BASALT. B. <i>Greenstone trap</i> (columnar.) A. <i>Amygdaloid</i> , (cellular.)	Granular. Compact. Toadstone.	Amethyst. Calcedony. Prehnite. Zeolite. Opal.
19. 	THIRD GRAYWACKE. B. <i>Pyritiferous grit.</i> A. <i>Pyritiferous slate.</i>	Conglomerate, (breccia.) Calcareous grit. Red sandstone, (old red sandstone?) Red wacke. Argillaceous.	Grindstone. Hornstone? Honeslate. Bituminous shale and coal. Fibrous barytes.
18. 	CORNITIFEROUS LIMEROCK. B. <i>Shelly.</i> A. <i>Compact.</i>		Hornstone.
17. 	GEODIFEROUS LIMEROCK. B. <i>Sandy.</i> A. <i>Swinestone.</i>	Fœtid.	Snow-gypsum. Strontian. Zinc. Fluor spar.
16. 	LIAS. B. <i>Calcififerous grit.</i> A. <i>Calcififerous slate.</i>	Shell grit. Argillaceous. Conchoidal.	Shell limestone. Vermicular. Water cement. Gypsum.
15. 	FERRIFEROUS ROCK. B. <i>Sandy.</i> A. <i>Slaty.</i>	Conglomerate. Green. Blue.	Argillaceous iron ore, (reddle.)
14. 	SALIFEROUS ROCK. B. <i>Sandy.</i> A. <i>Marl slate.</i>	Conglomerate. Grey-band. Red sandy. Grey slate. Red slate.	Salt, or Salt-springs.
13. 	MILLSTONE GRIT. B. <i>Conglomerate.</i> A. <i>Sandy.</i>		Coal?

	GENERAL DEPOSITES AND SUBDIVISIONS.	VARIETIES.	EMBEDDED AND DISSEMINATED.
26. 	SUPERFICIAL ANAL- LUVION. B. <i>Granulated</i> , (from graywacke.) A. <i>Clay loam</i> , (from argillite.)		Various boulders Pebbles.
25. 	STRATIFIED ANAL- LUVION. C. <i>Lias</i> . B. <i>Ferriferous</i> . A. <i>Saliferous</i> .		Gypsum. Shell limestone. Reddle.
24. 	POSTDILUVION. B. <i>Sediment</i> . A. <i>Pebbles</i> , (in the rocky bed of a river.)		Various boulders. Trees and herbs. Fish bones and shells. Works of art.
23. 	ULTIMATE DILUVION, (on crag in old forests.)	Yellowish grey. Greyish yellow.	
22. 	DILUVION, (in an antediluvial trough.)	Quicksand. Gravel. Vegetable mould.	Boulders. Trees and leaves. Bones and shells. No works of art.
21. 	ANTEDILUVION. C. <i>Bagshot sand</i> <i>and crag</i> . B. <i>Marly clay</i> . A. <i>Plastic clay</i> .	Quicksand. Yellow sand. Hardpan. Brick earth.	Puddingstone. Buhrstone. Bog ore. Shell marl. Indurated marl. Septaria?

The following TABULAR ARRANGEMENT of the ROCK FORMATIONS along the CONNECTICUT, after the method of Conybeare and Phillips, is given by Mr. Hitchcock.*

I. INFERIOR ORDER.

		<i>Rocks observed in contact with those in the leading column.</i>	
Mutually Interstratified, and without any regular order of succession.	1. Granite	{ Common .. Porphyritic Graphic .. Pseudo-morphous	Sienitic Granite.
			Gneiss.
			Hornblende Slate.
			Mica Slate.
			Serpentine.
	2. Sienite, or Sienitic Granite	{	Limestone, (No. 7.)
			Diluvium.
			Alluvium.
			Granite.
			Hornblende Slate.
	3. Gneiss { Common .. Glandulous	{	White Granular Limestone.
			Mica Slate.
			Steatite.
			Diluvium.
			Granite.
	4. Hornblende Slate ..	{	Sienitic Granite.
			Gneiss.
			Mica Slate.
			Diluvium.
			Granite.
	5. Mica Slate	{	Gneiss.
			Hornblende Slate.
			Limestone, (No. 7.)
			Argillite.
			Chlorite Slate.
			Greenstone Slate.
			Serpentine.
			Steatite.
			Old Red Sandstone.
			Coal Formation.
	6. Talcous Slate	{	Diluvium.
			Alluvium.
			Mica Slate.
			Chlorite Slate.
			Granite, (in veins.)
	7. Limestone, or a Gran. Aggregate of Siliceous Carb. Lime & Mica	{	Mica Slate.
			Argillite.
			Talcous Slate.
			Mica Slate.
			Argillite.
	8. Chlorite Slate	{	Verd Antique.
			Prim. Greenstone.
			Diluvium.
			Alluvium.
			Gneiss.
	9. Steatite	{	Mica Slate.
			Serpentine.
			Granite.
			Mica Slate.
			Granul. Limestone.
	10. Serpentine	{	Steatite.

11. Verd Antique

12. Prim. Greenstone ..
Unstratified
Greenstone ..
Slate ..

Rocks observed in contact with those in the leading column.
Prim. Greenstone.
Chlorite Slate.
Mica Slate.
Chlorite Slate.
Sienite.
Verd Antique.
Old Red Sandstone.
Coal Formation.

The order of succession of the 7 preceding rocks is very variable & uncertain.

II. SUBMEDIAL ORDER.

13. Argillite

Mica Slate.
Limestone, (No. 7.)
Prim. Greenstone.
Chlorite Slate.
Old Red Sandstone.
Diluvium.
Alluvium.

III. MEDIAL ORDER.

14. Old Red Sandstone {

Common ..
Conglomerated ..
Prim. Greenstone.
Second Greenstone.
Coal Formation.
Diluvium.
Alluvium.

15. Coal Formation ..

Wacke

Trap Tuff....

Dark bastard Limestone.

Bituminous do.

Fœtid ditto ..

Seams of Coal

Fine red arg. Sandstone ..

Coarse grey Silicious ditto

Very Mica. do.

Blk. tortus. do.

Bitumin. Shale

Finer Puddingstone

Coarse ditto..

Granite.

Gneiss.

Mica Slate.

Old Red Sandstone.

Prim. Greenstone.

Second Greenstone.

Diluvium.

Alluvium.

Compact

Columnar ..

Amygdaloidal

Porphyritic ..

Granite.

Old Red Sandstone.

Coal Formation.

IV. SUPERIOR ORDER.

17. Diluvium

Above most or all of the preced. forma.

18. Alluvium {

Ocean. depos.

Beds of Grav.

Ditto. Clay

Ditto. Sand

Loam

Decon. Rocks & Vegetables

Above most of the preceding formations.

* Silliman's Journal, vol. vii. to which we must refer for more detailed information.

The valley of the Mississippi, presenting an area of 1500 miles from east to west, and 1200 from north to south, occupied by extended strata of the secondary class, is an object too interesting not to have set speculation in activity; more especially as connected with the immense lakes in the interior of the North American continent. When treating of the physical geography of this interesting country, we gave an account of the fact that the lakes are not divided from the Mississippi valley by mountains, or by any considerable highlands. It has been accordingly suggested by Mr. Maclure, and Professor Cleaveland and others seem disposed to concur with him, that all this extent of secondary rocks, together with the area of the present lakes, and a large space to the northward of them, was once the bottom of a much larger lake or sea, and that the waters of it have been gradually discharged by the Mississippi, the Hudson, and the Saint Lawrence, the only rivers which have broken through the mountains once surrounding this immense basin of water.^b Without being prepared to propose any more plausible conjecture, we cannot express any satisfaction in this, which seems to us to be incumbered by the obvious fact that one side of this supposed basin appears never to have been enclosed by mountains at all. Between the southern extremity of the Apalachian chains and the corresponding portion of the Chippewyan range intervenes a space of many hundreds of miles, affording no barrier which could enclose the imagined waters; or if the Ozark Mountains be considered sufficient for this purpose, the same cannot, at all events, be imagined of the level and sandy tract between them and the Chippewyan. Allowing the valley of the Mississippi to have been once the bottom of the sea, the conjecture of its elevation by subterraneous forces appears to us less difficult than that of its drainage by its present rivers.

The evidences of diluvial action on the North American continent are very ample, and on the same magnificent scale with the other geological phenomena. The following description of them in one locality is given by Professor Eaton:—"I find a diluvial trough, extending from Little Falls, along the Erie Canal, one hundred and sixty miles. After numerous examinations, I feel confidence in the following description. It is as it would have been, the whole having been filled to its present level with marly clay, covered with Bagshot sand and crag, generally overspread with a layer of shell marl, had it then been cut up, by a strong current running from Little Falls westerly, into islands, ridges, embankments, &c.; and after these channels were thus made, had they been filled with a confused mass of gravel, sand, clay, trees, leaves, fresh-water shells, &c. Whether the appearances originated in this manner, or in any other way, such is the present aspect. I caused diggings to be made, to the depth of forty or fifty feet; and in one case a well was dug one hundred and eighteen feet

^b Mr. Maclure's paper may be seen in Silliman's Journal, vol. vi. p. 93. It is to us altogether unsatisfactory.

deep. The American hemlock (*pinus canadensis*) appeared everywhere to the greatest depth of this deposit; also, immense quantities of fresh-water shells. They were chiefly of the genus *Mya*, (*Unio* of Bruguières,) and *Helix*, (*Lymnæ* of some authors.) The insulated remains of the stratified antediluvial deposits present the marly clay, Bagshot sand and crag, beautifully crowned with almost snow-white shell marble, a fine yellowish soil, and vegetable mould, or peat. I may add, that nothing is more manifest, than that these deposits could not have been made by any existing cause." In addition to deposits of gravel, boulders are likewise extensively found. Along the Connecticut in the primitive region, large boulders in great numbers are commonly found, removed not many miles from the spot whence they were derived. Stragglers of this description may indeed be found almost everywhere, and among all the rocks none seems to be more scattered than granite, though perhaps the numerous beds and veins of this rock found almost everywhere may account for this: but in general along this river, the character of the rolled masses corresponds to the rock in the place underneath them; that is, the greatest number of the loose stones are of the same description as the rock that underlies them. But to this there are many exceptions—a most remarkable one occurs a few miles west of New Haven in Woodbridge and Milford, where the surface is covered with rolled masses, sometimes quite large, of primitive and secondary greenstone, mica slate, gneiss, granite, and almost every other rock, except that which is in place, viz. chlorite slate, or argillite. In many places which are highly mountainous, the geest (diluvium) is so abundant as to occupy most of the surface; the subjacent rock rarely appearing, as in the east part of Plainfield and in Shutesbury. The diameter of the loose fragments varies from an inch to twenty or even thirty feet, and they are usually rounded, indicating attrition. Some of the highest of these boulders are found insulated on the pinnacles of the mountains. Bordering on the Ohio River, in the state of Ohio, is a hilly region, which covers perhaps one third part of the surface of the state. Above these hills towards Lake Erie, boulders of primitive rocks are found. That they are out of place in a region decidedly secondary and alluvial no one can doubt. They are water-worn, rounded, and smoothed, exactly like the pebbles in alluvial soils, and like them have been abraded by the stones with which they have come in contact, aided by the waters in which they have been immersed. That they have been brought thither from the north, north-west, and north-east, appears from the following considerations:—

1. They exactly resemble the primitive rocks found, in several instances, on the shores of Lake Superior, and on the north side of Lake Ontario.
2. In proceeding northwardly from the hilly region above mentioned, they increase both in number and size. They have been seen on the northern side of the hilly region about Hillsborough, in Highland county, but never on the southern side of this region, except in the form of pebbles, in the beds of rivers passing through the country

where the larger masses exist. These rocks abound most in valleys, which now are or appear to have been the beds of streams. Thus, in the bed of the Whetstone, below the town of Delaware, large rocks of this class are seen reposing on limestone. The latter rock is *in situ*, and abounds in shells. The stream (the Whetstone) has worn itself a channel, in some places very deep, through clay slate, until it has been checked in its progress downwards by a very hard, compact limestone. In the barriers (improperly so called) in Madison county, none but primitive boulders are found, and they are used for chimneys, and for the underpinnings of buildings. They are sometimes used for mill-stones, and one fragment was so large as to make three mill-stones. Primitive rocks are found in Indiana and Illinois, north of their hilly region, as in Ohio, south of Lake Ontario. They are also found in the state of New York, in a country geologically similar in all important respects to Ohio, Indiana, and Illinois.

In reference to the stratum which, in his tabular arrangement given above, Professor Eaton calls *ultimate diluvion*, he makes the following statement: "All elevated plains from which the original forests have not been removed, and whose surfaces have not been disturbed, are now covered, immediately beneath the vegetable mould, with a mantle of fine earth, finest at the surface, and this is everywhere nearly similar, and unlike the stratum upon which it rests. It is most perfect, as far as I have examined, upon that variety of crag which American agriculturists call hardpan. Almost the whole of the vast tract of land called Hardenburg patent, west and south-west of Catskill mountains, containing several million acres, and most of the high ranges in New England, and the lands west of Lake Champlain, present a most perfect example of the hardpan crag covered with this ultimate diluvion." Professor Eaton is the only geologist who has thought this stratum worthy of a distinct enumeration, and seems doubtful whether any analogous fact has been traced by others; but we apprehend it entirely harmonizes with European observation, though on this side of the Atlantic such matter may be less extensively found. It appears to be identical, for example, with the fine earth lying above the pebbles in the diluvial hollows of the rock of Gibraltar.¹

Striking indications of a similar kind are found in the great interior lakes. Of the north-west portion of Lake Huron, which exhibits many evidences of change and convulsion, Dr. Bigsby gives the following account:—The original form of the bed of the lake may be described as a triangular valley of great extent, divided in an easterly direction by the Manitoulin Ridge into two unequal parts, the northern being rocky and of variable elevation, and the southern more uniform in its level, and generally lower. In its present form, the bed of Huron Lake is covered with the debris of distant countries: its rocks are furrowed and abraded; its loftiest heights

¹ Buckland's *Reliquiæ Diluvianæ*.

overthrown, (of greenstone, one of the most tenacious of minerals, as in the narrows of St. Joseph,) separating large tracts from the Main; and finally, passages, from ten to twelve miles wide and ten long, are forced in the Great Manitoulin barrier itself. These violences, and particularly the first and last, indicate a more general and powerful agency than that of a gradual accumulation of waters of Lakes Huron and Superior, whose united surplus requires only an outlet of three hundred yards in breadth, (River St. Clair,) in place of the four Manitoulin detours. The effect of a gradual accumulation of water would have been to have filled the north division of Lake Huron, and, in the end, to have inundated the lower grounds on the south and east by an embouchure at the point of least elevation in the Great Ridge. Dr. Bigsby is inclined to the opinion that an enormous body of water (a "debacle") has rushed over these countries, swept from distant lands the colossal fragments of rock so frequent in the Lake, and formed the breaches called the detours; perhaps at the same time when the passages of the Hudson and Shenandoah were opened, and the heights of Quebec and the marshes of Montreal were covered with the ruins of annihilated mountains. These fragments are incredibly numerous in Lake Huron, and may be divided into two geological classes, the foreign and the native. The former are the more plentiful, and are round and smooth. They are seen everywhere, but are collected principally in the interior of the coasts and islands, either in confused heaps, or in parallel ridges, and crowning the highest acclivities in great numbers. The fragments are of various dimensions. They belong almost exclusively to the older orders of rocks, and are therefore of a northerly origin. Granites, gneiss, mica slate, and porphyries prevail, of kinds which, says Dr. Bigsby, "I never saw *in situ*, although I have skirted the north shore for two hundred miles, and have traversed the wildernesses to the east-north-east for six hundred miles. Mica slate I never met with in a fixed state, excepting a few strata of the black variety at the Falls des Chats, on the Ottawa." The other class is small, angular, and ragged. They are most frequent on the beaches, whither they are driven by the waves.

The formations in the United States of a character strictly alluvial are numerous and extensive, as may readily be imagined from the extent of its sea-coast, and the multitude and magnitude of its rivers. Thousands and millions of acres must have been thus formed in the course of ages, and are undoubtedly in a continued progress of formation.

From the importance which fossil remains have recently assumed in geological investigations, much interest necessarily attaches to those contained in the strata of the western world. It will be long before so vast a field of inquiry is fully explored; and, with Mr. Maclure in 1812, we may still say that it has not yet been examined with that accuracy of discrimination necessary to form just conclusions. From the

various sources open to us we glean the following notices. The fossils of the transition strata consist of the ancient coralline and encrinital families, trilobites, &c., and generally resemble those of similar rocks in other parts of the globe. Entering upon the carboniferous strata of Conybeare and Phillips, we find the following account of the old red sandstone by Mr. Hitchcock:—"I found, in Deerfield Mountain, one or two specimens that belong to the petrifacts of Martin, there being a perfect substitution of a finer grained sandstone for the original substance. I found only fragments, about four or five inches long, and they appear to belong to the genus phytolite of Gmelin's Linnaean System, and to the species Lignite. They are a third of an inch in diameter, and a little flattened; and seem to agree with Professor Eaton's description of certain petrifications found in red sandstone on the Catskill Mountain (Index p. 211); which he is inclined to refer to the 'tribe of naked Vermes.' Fossil bones occur in East Windsor, east parish. They belong to the conservata of Martin, and, without much doubt, to the genus zoolithus of Gmelin. The animal must have been about five feet in length, and lay horizontally in the rock, eighteen feet below its top, and twenty-three below the surface of the ground. The tail bone, as Dr. Porter, who lives near the spot, informed me, projected beyond the general mass containing the body of the skeleton, about eighteen inches in a curvilinear direction. This, of which that gentleman gave me a specimen, was easily distinguished by its numerous articulations. On exposure to the air, the bones begin to crumble, and lose the appearance they presented when first dug up. The rock in which these bones were found is decidedly the old red sandstone. It agrees exactly with that rock as it exists at New Haven, and to the distance of one hundred miles north from that town. The rock enclosing the bones is a little coarser than the finest varieties of this rock, and in the rock above the bones was found some moderately coarse conglomerate. Whatever doubt I had with regard to some other varieties of rock in that vicinity being the real old red sandstone, I could have no doubt in regard to this, after examining it."

From the same paper we derive an account of the organic remains in the coal formation itself. These occur at Westfield, Connecticut; at Sunderland, Massachusetts; and it is said also at some other places. At Westfield they were found, in exploring for coal, lying upon bituminous shale. Two species at least were recognized, one of which Mr. Brongniart calls the *Palæotrissum freislebenense* of Blainville. At Sunderland impressions occur in bituminous shale, which often contains a little mica, and generally a quantity of iron pyrites, disseminated through the rock. They occur at Witmore's ferry, in the north part of Sunderland, in the bank of the river. They are found most abundant at the lowest water-mark, at which time two men, in less than half a day, dug out for me nearly fifty specimens. Sometimes a layer of semi-crystalline dark coloured carbonate of lime, less than one twentieth of an

inch thick, lies between the layers of slate. The substance of the fish is usually converted into coal, the thickness of which is rarely more than one tenth of an inch in any part, and the colour is black; in some instances, however, the carbonate of lime above mentioned covers the fish, and has taken the place of the matter of the fins and scales, and their original light grey colour is preserved so perfectly as to resemble a fish just taken out of the water. Some of the specimens appear contorted; in others the form of the fish is wholly lost, the fins, scales, and bones being scattered about promiscuously, as if the fish had perished in violent struggles, or the rock had been disturbed after its imprisonment. Yet, in the same specimen that contains one thus mutilated, another will appear not more than a foot distant which is whole. Specimens have been found in which the fishes (both of them distinct,) lie across each other; sometimes a very thin layer of shale, and sometimes none, separating them. Another specimen, three feet long and fifteen inches wide, contains seven distinct impressions. The shale in which these ichthyolites occur, when rubbed or held in a flame, exhales a strong bituminous odour. Among the impressions hitherto obtained, are easily discoverable three distinct species that have scales. Another petrification occurs with fishes which resemble the common silver eel, (*Muræna anguilla*,) or some other species of the eel tribe; the width varies from half an inch to an inch, and the length from one to two feet. The substance of the eel (if indeed it be one,) is not converted into coal, but there is a substitution of shale of a finer grain, except in the head, which is coal. No fins appear, except, perhaps, in one instance, a pectoral one. Sometimes along the centre of the impression there is a small relief, answering to the place of vertebrae. The course of the impressions is usually serpentine.

The vegetable remains appear to be either the branches or roots of trees, or the relics of culmiferous plants, and therefore may be called lignites and rhizolites. They are usually converted into a thin vein of coal, similar to the fish, and they are commonly broken into pieces from an inch to two feet long. Their width varies from a mere line to two inches, and they are not jointed. They are found in abundance at the falls in Gill, and with the ichthyolites at Sunderland; the rock in which they occur at both places is hardly bituminous shale, but a greyish micaceous sandstone. A specimen of rhizolite occurs on the road side, half a mile south of Newgate prison, not less than seven or eight feet in length.

The following information respecting a different part of the country is furnished by another writer, Mr. Caleb Atwater, in the same Journal. "In the vicinity of the Ohio River, and on the waters of the Muskingum, I have carefully examined not a few of the fossil trees there existing. Among them I noticed the following, (viz.)—black oak, black walnut, sycamore or button wood, white birch, sugar maple, the date or bread-fruit tree, cocoanut-bearing palm, the bamboo, and the dog wood; and I

have in my possession the perfect impression of the cassia and the tea leaf. Of ferns I have beautiful impressions of the leaves, and of the bread-fruit tree flowers fully expanded, fresh and entire. I have specimens so perfect, and so faithful to nature, as to dispel all doubts as to what they once were. The larger trees are found mostly in sandstone, although the bark of the date tree, much flattened, I ought to say perfectly so, is found in shale, covering coal. The date is a large tree, not very tall, and having numerous wide-spreading branches. Nine miles west of Zanesville, the body of a bread-fruit tree, now turned to sandstone, may be seen; it is exactly such sandstone as that in which M. Brongniart found tropical plants imbedded in France. It contains a considerable quantity of mica in its composition. The cassia was found in such sandstone in the Zanesville canal. The bamboo is mostly impressed upon ironstone, especially the roots, and the trunks and leaves are found in the micaceous sandstone. The ironstone is sometimes apparently made of bamboo leaves, the leaves of fern, and bamboo roots. It happens frequently that the trunks of small trees and plants are flattened by pressure, and the bark of them partially turned into coal. Thus the shale often contains a bark, now become coal, and a stratum of shale in succession, alternately, for several inches in thickness."

No part of the secondary strata has undergone so full and accurate an investigation as the ferruginous sand formation to the east of the Appalachian Mountains, by Dr. Morton of Philadelphia, to whose industry and care the science in this department is much indebted. As it is impossible for us to enter largely into detail, we give the following enumeration of the ascertained fossils in this formation, referring our readers for more particular information to the works mentioned below.^k

CHAMBERED UNIVALVES. Ammonites: 1. *A. placenta*; 2. *A. hippocrepis*; 3. *A. delawarensis*; 4. *A. vanuxemi*. Baculites: *B. ovatus*. Scaphites: *S. cuvieri*. Belemnites: 1. *B. americanus*; 2. *B. ambiguus*.—SIMPLE AND SPIRAL UNIVALVES. Dentalium, Patella, Turritella, Scallaria, Rostellaria, Natica, Bulla? Trochus, Spirorbis? Serpula, Cypræa.—BIVALVES. Terebratula: 1. *T. harlani*; 2. *T. fragilis*; 3. *T. Sayi*. Gryphæa: 1. *G. convexa*; 2. *G. mutabilis*; 3. *G. vomer*. Exogyra: *E. costata*. Ostrea: 1. *O. falcata*; 2. *O. cristagalli*? 3. *O*; 4. *O* Anomia. *A. ephippium*? Pecten: 1. *P. quinquecostatus*. 2. *P* Cardium. Cucullæa: 1. *C. vulgaris*. 2. *C* Mya, Trigonía? Tellina, Avicula, Pectunculus, Pinna, Teredo, Venus, Plagiostoma.—ECHINIDÆ. Spatangus, Ananchytes, Echinus, Clypeaster.—CRUSTACEA. Astacus, Cancer.—ZOOPHYTES. Anthophyllum (*atlanticum*,) Eschara (*millepora*, *Lin.*) Flustra, Retepora, Caryophyllia, Alcyonium.—FOSSIL BONES. Mosasaurus, Plesiosaurus, Saurodon, Geosaurus, Crocodile, Whale? Shark, Tortoise. To these may be added an abundance of lignite, in various stages, from

^k Silliman's Journal, vol. xvii. p. 279; vol. xviii. p. 244. Journal of the Academy of Natural Sciences, vol. vi. p. 113.

charred wood to perfect jet. We have already referred to these organic remains as sufficiently establishing the secondary character of the strata in which they are found.

With respect to the fossils of the tertiary formation, we collect the following notices. In the plastic clay and sand are found large quantities of lignite, with dispersed shells of the genera *venus*, *ostrea*, and *murex*, besides beds of the oyster. The silicious limestone contains splendid impressions of two or three varieties of *mactra*. "In the banks of James River, Virginia," says Mr. Finch, "there is a large quantity of organic remains imbedded in a bank of clay. At Richmond are found fossil triangular teeth apparently belonging to sharks, and other pieces of bone, at a distance of sixty feet from the surface. All these fossil remains are similar to those found in the London clay, and from the same spot I have seen fossil shells, similar to those which are deposited in the collection of the Geological Society in London, and which were obtained in the deep excavations at Highgate Hill." At Washington, under the mass of diluvian gravel of which the higher part of the capitol hill is composed, there is a stratum of clay, which contains many organic remains. Trunks and branches of trees are found at a distance of fifty-four feet from the surface; and farther down the river, in digging wells, sharks' teeth are often met with. Near Williamsburg, fifty miles from the Atlantic ocean, the skeleton of a large fish was discovered; amongst other parts, fragments of the ribs, and all the vertebræ, were found regularly arranged.¹ Here also is placed by Mr. Finch a bed of oyster shells, which extends six hundred miles in length, from ten to one hundred miles in width, and if the known measurement in one part of the line may be supposed a fair criterion, three hundred feet in thickness. The principal part of the formation is composed of shells, and it may probably be considered as the largest collection of fossils in the world. In this stratum the shells are in some situations united by a scanty calcareous cement, from which they may be readily detached; in this state it is called by the inhabitants a soft limestone, which in the quarry is easily cut by any edge tools, and becomes harder on exposure to the air: in other parts it presents immense banks of loose shells, ten or fifteen miles in length, without the admixture of any foreign substance. This extensive formation is chiefly composed of a large species of *ostrea*, which is believed not yet to have been described. A specimen of it may be seen in the Philadelphia museum, twelve inches long and two and three-quarters wide, and each valve from half to two and a quarter inches thick: it is said they occur larger; and on account of their great size it is proposed to call them *ostrea gigantissima*. The shells appear but slightly changed by their continuance in the earth, and are in many parts used for burning into lime. Respecting the shells found "in the alluvial of New Jersey," according to Mr. Maclure, or those generally, we may presume, of the

¹ Silliman's Journal, vol. vii.

secondary and tertiary strata in the Atlantic slope, that distinguished geologist makes the following somewhat surprising observation. "Most of these shells are similar to those found in the limestone and graywacke of the transition, and equally resemble those found in such abundance in the secondary horizontal limestone and sandstone; from which it would follow, that the different classes of rocks on this continent cannot be distinguished by their shells, though the different strata of the same class may be discovered and known by the arrangement of the shells found in them." This observation requires either the confirmation or the correction of subsequent inquiries.

To give our readers an idea of the fossils of more recent origin in which the United States abound, we cannot, perhaps, do better than present to them an account of one of their most remarkable localities, a morass, known by the characteristic name of Big-bone Lick, in Kentucky. This wonderful spot is a small valley situated twenty miles south-west of Cincinnati, and two from the Ohio River. In a number of places the ground is so soft for several rods, that a pole may with ease be thrust down many feet. In these soft places saline and sulphurous mineral waters rise; the earth round them is dry and solid. Here are found the bones of the mastodon, elephant, buffalo, elk, and other now unknown animals. They are in immense quantities—it is a complete charnel-house. The bones are generally under ground, and so numerous that a hole cannot be dug to the depth at which they are usually found, without striking them. They are generally bones of the buffalo. On the east side of a rivulet that runs near the principal spring they lie in a horizontal stratum, three feet below the surface, where the ground is lowest, and eleven, where the ground is eight feet higher. As the ground is dry and solid over this stratum, it cannot be supposed that the bones have sunk through it to their present level; their position also excludes such a supposition, each bone lying horizontally, and the stratum also being horizontal. If the bones had penetrated the ground when it was soft, it cannot be supposed that they would have arranged themselves in a horizontal stratum, irrespectively of the unevenness of the ground, and of the various depths, three and eleven feet, necessary to attain this horizontal range; it is therefore evident, that this part of the valley was level when these bones were deposited, and that they lay on the surface, and were subsequently covered with earth. As they have been covered without being displaced, and without the horizontal position of each bone or of the stratum being disturbed, the only admissible supposition is, that they have been covered by an inundation. They must previously have been long accumulating; for there has been no accumulation since that supposed event, which bears any comparison for quantity with those thus imbedded. The inference also seems warranted, that quadrupeds have never been equal, either in number or variety, since such an inundation, to what they were previously to it. The ground on the opposite side of the rivulet is higher, and presents a different class of phenomena. There the bones

lie promiscuously, at unequal depths, without any stratification; we must, therefore, suppose that some other agent than an inundation has contributed to this state of things. These bones are represented as in a state of "entire preservation;" a circumstance ascribed in part by the narrator to the salt with which the earth at Big-bone Lick is strongly impregnated. He adds a more remarkable fact, when he informs us that the process of petrification has commenced among them and that many of them are completely petrified.

Some further interesting particulars respecting similar remains will be found in the following description of them by Mr. Atwater, as occurring in the state of Ohio. "I am credibly informed, that in digging a well at Cincinnati, in this state, an arrow-head was found more than ninety feet below the surface. At Pickaway plains, while several persons were digging a well several years since, a human skeleton was found seventeen feet six inches below the surface. This skeleton was seen by several persons, and among others, by Dr. Daniel Turney, an eminent surgeon; they all concurred in the belief, that it belonged to a human being. Pickaway plains are, or rather were, a large prairie, before the land was improved by its present inhabitants. This tract is alluvial to a great depth; greater, probably, than the earth has ever been perforated, certainly than it has been here by the hand of man. The surface of the plain is at least one hundred feet above the highest freshet of the Scioto River, near which it lies. On the surface is a black vegetable mould, from three, to six, and nine feet in depth; then we find pebbles, and shells imbedded among them: the pebbles are evidently rounded and smoothed by attrition in water, exactly such as we now see at the bottom of rivers, ponds, and lakes. I have examined the spot where this skeleton was found, and am persuaded that it was not deposited there by the hand of man, for there are no marks of any grave, or of any of the works of man, but the earth and pebbles appear to lie in the very position in which they were deposited by the water. On the north side of a small stream, called Hargus creek, which at this place empties itself into the Scioto, in digging through a hill composed of such pebbles as I have described in Pickaway plains, at least nine feet below the surface, several human skeletons were discovered, perfect in every limb. These skeletons were promiscuously scattered about, and parts of skeletons were sometimes found at different depths below the surface. This hill is at least fifty feet above the highest freshets in the Scioto, and is a very ancient alluvion, where every stratum of sand, clay, and pebbles, has been deposited by the waters of some stream. Other skulls have been taken out of the same hill, by persons who, in order to make a road through it, were engaged in taking it away. These bones are very similar to those found in our mounds, and probably belonged to the same race of men; a people short and thick, not exceeding generally five feet in height, and very possibly they were not more than four feet six inches. The skeletons, when first

exposed to the atmosphere, are quite perfect, but afterwards moulder and fall into pieces. Whether they were overwhelmed by the deluge of Noah, or by some other, I know not; but one thing appears certain, namely,—that water has deposited them here, together with the hill in which, for so many ages, they have reposed. Indeed, this whole country appears to have been once, and for a considerable period, covered with water, which has made it one vast cemetery of the beings of former ages." Fragments of antique pottery, and even entire pots of coarse earthenware, have been found likewise in the excavations of the Illinois salt-works, at the depth of eighty feet and more from the surface. One of these was ascertained to hold from eight to ten gallons, and some were alleged to be of much greater capacity. This fossil pottery is stated not to differ materially from that which frequently occurs in the mounds supposed to have been formed by the aboriginal Indians.

The most extraordinary of the North American fossils in point of bulk, and we may add the most interesting to science, are the remains of the mastodon, an enormous creature of an extinct race, bearing a close affinity to the elephant, and long considered to be identical with it, but now allotted to a distinct genus, under the name of *Mastodon*. Of the discovery of these remains we would gladly give a detailed account if our limits would allow; but we must content ourselves with referring our readers to Godman's *Natural History*, vol. ii. where much information on the subject is collected. The size of the living animal may be conjectured when it is stated, that the head, at the posterior part, is 32 inches across, the lower jaw 2 feet 10 inches long, and the tusks 10 feet 7 inches long, and 7½ inches in diameter at the base. The first vertebra, the atlas, is 11 inches broad, and 18 inches from tip to tip of the transverse processes. The scapula, or blade-bone, is 37 inches long, the shoulder-bone 2 feet 10 inches by 3 feet 2½ inches at the largest part, and the fore-arm (ulna) 2 feet 5½ inches in length by 3 feet 8 inches where largest. The pelvis is five feet 10 inches across; the thigh-bone 3 feet 7 inches in length, with a diameter of 8 inches in the middle; and the leg (tibia) 2 feet, with a diameter of 8 inches at the upper part. An attempt was made to form of these remains a complete skeleton. Contemplating the partially restored form of the monster, might not the beholder, imagining what must once have breathed, and moved, be justified in saying, "The emotions experienced when, for the first time, we behold the giant relics of this great animal, are those of unmingled awe. We cannot avoid reflecting on the time when this huge frame was clothed with its peculiar integuments, and moved by appropriate muscles; when the mighty heart dashed forth its torrents of blood through vessels of enormous caliber, and the mastodon strode along in supreme dominion over every other tenant of the wilderness. However we examine what is left to us, we cannot help feeling that this animal must have been endowed with a strength exceeding that of other quadrupeds, as much as it exceeded them in size; and, looking at its ponderous jaws,

armed with teeth peculiarly formed for the most effectual crushing of the firmest substances, we are assured that its life could only be supported by the destruction of vast quantities of food. Enormous as were these creatures during life, and endowed with faculties proportioned to the bulk of their frames, the whole race has been extinct for ages. No tradition nor human record of their existence has been saved, and but for the accidental preservation of a comparatively few bones, we should never have dreamed that a creature of such vast size and strength once existed,—nor could we have believed that such a race had been extinguished for ever. Such, however, is the fact—ages after ages have rolled away—empires and nations have arisen, flourished, and sunk into irretrievable oblivion, while the bones of the mastodon, which perished long before the periods of their origin, have been discovered scarcely changed in colour, and exhibiting all the marks of perfection and durability. That a race of animals so large, and consisting of so many species, should become entirely and universally extinct, is a circumstance of high interest; for it is not with the mastodon as with the elephant, which still continues to be a living genus, although many of its species have become extinct: the entire race of the mastodon has been utterly destroyed, leaving nothing but the ‘mighty wreck’ of their skeletons, to testify that they once were among the living occupants of this land.”

We cannot quit this subject without adverting to a striking instance of the facility with which the marvellous may be converted into the miraculous. In reference to one of the mastodon skeletons discovered in the United States, we have the following passage in Cuvier, *Oss. Foss.* vol. ii. ed. 1. “But what renders this discovery unique among others, is that in the midst of the bones was found a half triturated mass of small branches, of gramina, and of leaves, among which it was believed that a species of reed still common in Virginia could be recognized, and that the whole seemed to be enveloped in a sort of sac, which was considered as the stomach of the animal; so that there was no doubt but that these were the very substances upon which the animal had fed.” This information, it seems, was communicated to Mons. Cuvier by Dr. Barton in a letter, in which he says most truly, “*If the facts are as I state them, you will not hesitate to consider the discovery one of the most interesting that has been made for a long time. I may add,*” he continues with great naïveté, “*that such a discovery was hardly to be expected by the most sanguine or enthusiastic zoologist.*” Truly we think not; and quite as little was it to be expected that men of science should be so bereft of common sense as to credit such an alleged discovery without a rigorous investigation. Not an approach to satisfactory evidence of such a miracle exists. The reader may consult Godman’s *American Natural History*, vol. ii. p. 240.

We ought not to omit a reference to some fragments of the skull of a fossil ox, which were thrown out at an eruption caused by an earthquake, at New Madrid, on

the Mississippi, in 1812. It is stated that none of the oxen now in North America have crania "in the slightest degree" resembling this specimen. There has also been found upon the shores of Long Island a fossil skull of the genus *trichecus*, or walrus. It is agatized, and in fine preservation.^m It is stated by Dr. Harman,ⁿ that in North America, there have been found fossil remains of eleven species of animals, which no longer exist in a living state, in that or in any other country.

With respect to the question whether the whole of these remains occur exclusively in alluvial formations, or whether some of them are not imbedded in deposits strictly diluvial, some difficulty seems to us to exist. That in part they are alluvial, admits of no doubt; and if it is to be set down as a criterion that human bones and works of art occur in none but alluvial deposits, then, of course, the inquiry is at an end. We cannot help asking, however, how, upon this supposition, the stratum of bones laid horizontally under an uneven surface at Big-bone Lick is to be accounted for; or the promiscuous deposit of bones in the higher ground. We feel a similar difficulty respecting the plains in Ohio, where human bones have been found, in some cases fifty, and in some at least an hundred feet "above the highest freshet" of the river in their neighbourhood. We can do no more, however, than suggest our doubts, and commend the inquiry to those who may be able to pursue it to a conclusive issue. Should there appear reason to think that these remains are in any case found in diluvial deposits, it will open a new and interesting field of observation. We subjoin some remarks of Mr. Schoolcraft, as a specimen of the method in which the strictly alluvial character of these deposits is maintained. "One striking fact, which appears to have escaped general observation, is, that at some former period, there has been an obstruction in the channel of the Mississippi at or near Grand Tower, producing a stagnation of the current at an elevation of about 130 feet above the present ordinary water mark. This appears evident from the general elevation and direction of the hills, which, for several hundred miles above, are separated by a valley from twenty to twenty-five miles wide, which now deeply embosoms the current of the Mississippi. Wherever these hills disclose rocky and precipitous fronts, a series of distinctly marked antique water-lines is to be observed. These water-lines preserve a parallelism which is very remarkable, and as we should expect to find, constantly present their greatest depression towards the sources of the river.^o At Grand Tower they are elevated about 130 feet above the summer level, at which elevation we observe petrifications of madrepores and various other fossil organic remains which belong to this peculiar era. Here the rocks of dark-coloured limestone, which

^m Godman, vol. iii.

ⁿ Fauna Americana.

^o We have quoted accurately; but this statement appears to us, if correct, irreconcilable with Mr. Schoolcraft's theory. Water-marks produced by the course of a stream, would present their greatest elevation towards its source.

pervade the country to so great an extent, project towards each other as if they had once united; but by some convulsion of nature, or what is still more probable, by the continued action of the water upon a secondary rock, the Mississippi has effected a passage through this barrier, thus producing an exhaustion of the stagnant waters from the level prairie lands above. The whole Missouri shore from the vicinity of Grand Tower extending upwards, is sufficiently elevated to have served, at a former period, as the western shore of an expanse of waters standing upon the present surface of the state of Illinois. This hypothesis derives additional weight from an attentive consideration of the mineral character of the alluvial deposits forming the surface of the prairies, in which we often observe fine, hard, and compacted layers of earth, similar to those which are found at the bottoms of mill-ponds, where the water has been long stagnant."

Before closing our notices of fossils we must briefly advert to those which have been found in the caverns, with which the limestone districts of the United States abound, in a manner analogous to those of Europe. In too many instances caverns have been penetrated, and their contents disturbed, without any accurate observation or report: Professor Eaton, however, writes on the subject as follows: "The new cavern in Root's Nose, on the Erie Canal, I carefully investigated, aided by three accurate assistants. This is 400 feet in extent. I caused two important caverns to be minutely examined in the Helderberg by three good assistants, of whom Mr. Finch, the geologist, was one. In addition to these, I have caused the important points suggested by Buckland to be searched out in several of the Kentucky and Illinois caverns. Nothing resembling the bones so abundant in European caverns has hitherto been discovered. Whoever will take the trouble to make personal inquiry, or to look over the journals of the last half century, will learn that all the bones disinterred in this country which may be called antediluvian, belong to the pachydermata, or thick skin order. I cannot learn that a fragment of hyæna bone has ever been found in this hemisphere. I have taken measures to secure every important discovery made by the workmen on the canal for the last four years; I distributed 1000 copies of a pamphlet giving plain instructions for making collections, along the canal line, while the labour of excavating 360 miles was going on; but not a fragment of a dry-land animal was discovered. I may add, that we found stalagmites in all the caverns, as described by Buckland; and on shelves, and in other situations protected from the touch, and in almost every part of the new cavern in Root's Nose, we found a deposit resembling what I have elsewhere denominated ultimate diluvion." From these facts he derives the conclusion, not perhaps improbable, yet open to correction by future researches, that antediluvial animals were few on the North American continent, and that they consisted chiefly of large species of pachydermata.

We may now find a proper place for adverting to another topic. The geological aspect of the United States has, in many instances, been apparently modified by the comparatively recent operation of natural causes; such as the fall of a portion of a mountain, an impetuous torrent of water, or the draining of a lake. These are scenes which strongly tempt the spectator to suspect, and almost to be confident, that such events have occurred within a thousand, or perhaps within a few hundred years, and have given origin to valleys, and cliffs, and strata, and river courses, which now mingle in entire harmony with the general landscape. The want of written records among the native tribes precludes the possibility of discovering any other memorials of these catastrophes than such as are impressed on the face of nature; but while the idea is encouraged by the immense force of the causes which are here in operation, and the vastness of the scope which is open to their action, it is converted almost into certainty by occurrences of a similar kind which have taken place within the period of accurate observation and record. We may mention one in illustration of the manner in which local deposits of gravel may have been formed, and at a height considerably exceeding that of the water which produced them. The severity of the winter of 1821-2 having formed the ice of the Hudson of unusual thickness, it broke up suddenly, and moved down, not with great velocity, but with a degree of force which seemed to threaten even the shores of solid rock. Pressing against a little rock promontory across which a canal is cut, cakes of ice shot over, and soon filled the canal. Other cakes pressing against the bottom of these, lifted them up to a considerable height above the water. At length an enormous ice cake appeared, bearing on its back a great quantity of gravel, and began to press against the heaps of ice already formed, which bore much gravel also. Innumerable other cakes from behind, urged on by the unconquerable waters of the Hudson, soon forced the largest cake across the canal, and up the eastern bank, so that its eastern edge extended thirty-four feet higher than the surface of the water, carrying up hundreds of smaller cakes to the same height. "This mountain of ice," says Professor Eaton, "having taken its stand here, is now melting away, and leaving on the bank the gravel which is transported from the northern counties. I do not record this," he adds, "as an uncommon occurrence; but since it seems to be a rule among geologists to trace the derivation of alluvial deposits to localities more elevated than those where they are found, it may be well to remind them of contingencies of the above nature."

The following brief account relates to the cutting of deep channels by mountain torrents, and the formation and impulse of boulders. Deerfield river, in the greater part of its course, is a mountain torrent, very rapid and powerful, and has worn itself a passage often 400 feet deep, the banks being almost perpendicular. The ice freezes three or four feet thick, and when a sudden rain melts the snows on its banks,

the stream rises rapidly, and lifts up and urges forward with tumultuous fury this immense body of ice. As the banks among the mountains are steep and rocky, they prevent the accumulation of water and ice from spreading to the right or left, and thus an immense force is exerted upon obstacles in the bed of the stream, which, in winter floods, is filled with huge masses of ice to the very bottom. In the west part of Shelburne this river descends a cataract thirty or forty feet high. The rock in the bottom of the river is an aggregate of quartz and mica with hornblende intermixed, and below the falls it is unstratified, almost without seams, and very hard. Here we might expect the force of the torrent would be very powerful; and accordingly are found masses of this rock, from one to ten feet in diameter, raised from their bed and removed down the stream, some only a few rods, but some one or two miles. Some very large blocks are seen just beginning to be raised from their bed. "Previously to viewing this spot," says Mr. Hitchcock, "I had no just ideas of the enormous force exerted by a mountain torrent."

The most interesting account of this kind, however, is that given by the Rev. S. E. Dwight, of his visit to a lake which had burst its banks through an indiscreet attempt to draw off part of its waters to a needy mill. By virtue of the sandy nature of its margin, the whole contents of the basin were set at liberty, and made, of course, in their progress a frightful desolation. "I was most agreeably surprised," says our traveller, "as I descended the hills which overlook the valley of the river, to find the ravages made by the flood so distinctly visible, after the lapse of thirteen years. Our first view of the desolation presented a gully, or excavation in the earth, extending up and down the river as far as its course was visible, and varying in breadth from twenty to forty rods, and in depth from twenty to forty feet. This immense channel, except what had been previously worn away by the gradual attrition of the streamlet, had all been hollowed out at once by the violence of the torrent. Its sides were precipices of earth or sand, every where indicating the avulsion of the mass which had been adjacent, and exhibiting, in frequent succession, large rocks laid bare and often jutting out into the gulley, and near the top the uncovered roots of trees, which, having been partially undermined by the water, still nodded over the precipice. The bottom of this channel, as far as we could see, was covered with larger and smaller rocks and stones, and in some places with extensive deposits of sand. The sight of this vast excavation only heightened our conceptions of the effects of the flood."

We know not where, better than in connexion with these facts, to introduce one still more remarkable, if not altogether inexplicable. There have been found, it appears beyond all question, in naked limestone of the elder secondary formation, close on the western margin of the Mississippi at St. Louis, the prints of human feet. The prints are those of a man standing erect, with his heels drawn in, and his toes

turned outward, which is the most natural position. They are not the impressions of feet accustomed to a close shoe, the toes being very much spread, and the foot flattened in the manner that happens to those who have been habituated to go a great length of time without shoes. The prints are strikingly natural, exhibiting every muscular impression and swell of the heel and toes, with great precision and faithfulness to nature. The length of each foot, as indicated by the prints, is ten inches and a half, and the width across the spread of the toes, four inches, which diminishes to two inches and a half at the swell of the heels, indicating, as it is thought, a stature of the common size. Every appearance seems to warrant the conclusion that these impressions were made at a time when the rock was soft enough to receive them by pressure, and that the marks of feet are natural and genuine. "Such was the opinion of Governor Cass and myself," says Mr. Schoolcraft, "formed upon the spot, and there is nothing that I have subsequently seen to alter this view: on the contrary, there are some corroborating facts calculated to strengthen and confirm it." At Herculaneum, in the same neighbourhood, similar marks have been found, as well as on some of the spurs of the Cumberland mountains, always in similar limestone. In the latter case it is stated that the impressions are elongated, as of persons slipping in ascending a slimy steep. Opinions are much divided as to the origin and import of these impressions.^p Should similar observations multiply, important inferences may perhaps be drawn from them; at present it seems impossible to speak respecting them decisively or satisfactorily. They may perhaps be connected with the tracks of animals which have been noticed in Scotland.^q

The following extraordinary facts, respecting what may be termed living fossils, appear to be well authenticated. During the construction of the Erie canal, while the workmen were cutting through a ridge of gravel, they found several hundred of live molluscous animals. They were chiefly of the *Mya cariosa* and *Mya purpurea*. "I have before me," says Professor Eaton, "several of the shells from which the workmen took the animals, fried and ate them. I have received satisfactory assurances that the animals were taken alive from the depth of forty-two feet." In addition to this discovery in diluvial deposits, mention is made of a similar one in a much older formation. In laying the foundation of a house at Whitesborough, the workmen had occasion to split a large stone from the millstone grit. "It was perfectly close-grained and compact. On opening it they discovered a black, or dark brown spherical mass, about three inches in diameter, in a cavity which it filled. On examining it particularly, they found it to be a toad, much larger than the common species, and of a darker colour. It was perfectly torpid. It was laid upon a stone, and soon began to give signs of life. In a few hours it would hop moderately, on

^p Silliman's Journal, vol. v. p. 223.

^q See Dr. Brewster's Journal, April, 1828.

being disturbed. They saw it in the yard, moving about slowly for several days; but it was not watched by them any longer, and no one observed its farther movements. They laid one half of the stone in the wall, so that the cavity may still be seen. "The millstone grit," says Professor Eaton, who gives this account, "in which this toad was found, is the oldest of the secondary rocks. It must have been formed many centuries before the deluge. Was this toad more than 4000 years old? or was it from an egg introduced, through a minute and undiscovered cleavage, into this cavity or geode, made precisely to fit the size and form of a toad? I was particular in my inquiry, and learned that the whole stone was perfectly compact, without any open cleavage which would admit an egg. Besides, it is well known that the millstone grit is neither porous nor geodiferous. If this rock stratum was deposited upon the toad, it must have been in aqueous, not in igneous solution, and the toad must have been full grown at the time. Toads are often found in compact, hard, gravelly diluvial deposits, in situations which demonstrate that they must have lived from the time of the deluge. I think I am warranted in saying this without citing authorities, as it is a common occurrence. Then why may they not have lived a few centuries longer, if we admit them a life of at least 3000 years?"

CHAPTER II.

MINERALOGY.

FROM the Geology of the United States, we now turn to their Mineralogy, which is equally ample and extraordinary. We may first give a general view of the mineral contents of the several classes of strata.

A great variety of mineral substances are found in the primitive formation, such as garnets in the granite and mica slate, from the size of a pin's head to that of the head of a child, staurotide, andalusite, epidote in vast variety and abundance, tremolite, all the varieties of magnesian rocks, emerald touching graphic granite, and disseminated in the granite of a large extent of country, adularia, tourmaline, hornblende, sulphate of barytes, arragonites, &c. From the number already found in proportion to the little research that has yet been employed, there is every reason to suppose, that in so great an extent of crystalline formation, almost every mineral discovered in similar situations on the ancient continent will be found on the new. Metallic substances in the primitive are generally extensive, like the formation itself. Iron pyrites runs through vast fields, principally of gneiss and mica slate; magnetic iron ore, in powerful beds, from ten to twelve feet thick, generally in a hornblende rock, occupies the highest elevations, as in the Highlands of New York, the Jerseys, the Yellow and Iron Mountains in the west of North Carolina; a black brown bed of hematitic iron ore occurs in Connecticut and New York states; crystals of octahedral iron ore (some of which have polarity) are disseminated in granites, as at Brunswick, district of Maine, and in many varieties of the magnesian genus; black lead is met with in beds from six to twelve feet wide, traversing the states of New York, Jersey, Virginia, Carolina, &c.; native and grey copper ore, near Stanardsville, and Nicholson's Gap, Virginia, is disseminated in a hornblende and epidote rock, bordering on the transition; molybdena at Brunswick, (Maine,) Chester, (Pennsylvania,) Virginia, North Carolina, &c.; arsenical pyrites in large quantities in the district of Maine; red oxyd of zinc and magnetic iron ore in a powerful bed on the edge of the primitive, near Sparta, in New Jersey, having a large grained marble, with nigrin or silico-calcareous titanium imbedded in it on one side, and hornblende rock on the

other. This bed contains likewise large quantities of blende. Detached pieces of gold, of which we shall presently speak more particularly, have been found in the beds of some small streams in North Carolina, and other places. Manganese has been found in New York, North Carolina, &c. Near the confines of the old red sandstone and primitive formation, a white ore of cobalt has been wrought above Middletown, on the Connecticut river, and found also, as it is said, near Morristown, in New Jersey. The general nature of metallic repositories in this formation appears to be in beds, disseminated, or lying in masses; when in beds (as the magnetic iron ore and black lead) or disseminated (as the iron pyrites, octahedral iron ore, molybdena, &c.) they occur at intervals through the whole range of the formation. Veins to any great extent have not yet been discovered in this formation.

Beds of coalblende, or anthracite, accompanied by alum slate and black chalk, have been discovered in the transition strata, on Rhode Island, the Lchigh and Susquehannah rivers, and a large body of alum slate in Virginia; many powerful veins of the sulphate of barytes cross it in different places; granular, as that near Fincastle, or slaty, as that in Buncomb county, North Carolina. Iron and lead have as yet been the principal metals found in this formation; the lead in the form of galena, in clusters, or what the Germans call *Stockwerk*, as at the lead mines on New River, Wyeth county, Virginia; the iron disseminated in pyrites, hematitic and magnetic iron, or in beds; and considerable quantities of the sparry iron ore in beds, and disseminated in the limestone. Prehnite and Zeolite are found in the trap of the old red sandstone formation; and considerable deposits of magnetic iron ore at Grub's mines are enveloped, and have their circular layers intersected, by greenstone trap, on a ridge of which this extensive cluster of iron ore seems to be placed. Grey copper ore has been found in the red sandstone formation, near Hartford and Washington, in Connecticut; there are likewise mines in New Jersey, where copper pyrites and native copper have been found. The metallic veins at Perkiomen creek, containing copper, pyrites, blende, and galena, are in the same formation, running nearly north and south across the east and west direction of the red sandstone, and a small bed, from a half to three inches thick, of brown or red copper ore is interspersed, and follows the circular form of the iron beds at Grub's mines.

In the secondary and tertiary formations eastward of the Apalachian mountains, considerable deposits of bog iron ore occupy the lower situations, and many of the more elevated and dividing ridges between the rivers are crowned with a sandstone and puddingstone, the cement of which is bog iron ore. Large quantities of ochre, from bright yellow to dark brown, are found in this formation, in flat horizontal beds, alternating with other earths in some places, in others in kidney-form masses, from the size of an egg to that of a man's head; in form, resembling much the flint found frequently in chalk formations.

In the ordinary mineral productions, such as sand of all qualities, brick-earth, stone adapted for buildings of all descriptions, as well as for any kind of workmanship, the resources of the United States are inexhaustible. The same may likewise be said of many minerals of less universal occurrence, of which it may be expected that we should speak somewhat more particularly. To speak first of the precious metals. Gold is found in considerable quantities in North and South Carolina, on the eastern side of the Apalachian Mountains. One mass is stated to have weighed 28lbs. The value of the gold received at the mint of the United States up to 1820, was 44,000 dollars, or about 11,000*l.* sterling. It is remarkable that the gold of this region is found not only in alluvium, as in South America, but in its matrix, though the opinions of the scientific men who have written upon it are so various, as to render it difficult to say what the matrix is. By Professor Olmsted it is referred to clay slate (argillite); by Mr. Rothe to granite, and beds of greenstone occurring in granite; and by Professor Eaton to talcose slate, a kind of rock, in which he states that a small portion of gold has been found in Maryland.^a Its occurrence in the alluvium is thus explained, with great probability, by Professor Mitchell:—"It formerly existed in the rocks of the region in which it is found, whether in veins of quartz exclusively, or also disseminated through the rock, is in a degree uncertain; but I am inclined to think, disseminated also. As the rocks have undergone decomposition, it has fallen out, and now lies mingled in the soil, near the same spot, and bearing the same proportion to the earthy matter as when enclosed in its original stony matrix. In a few cases only, where it happened to occupy the side of a steep declivity, it has been carried down during the violent rains into the adjacent low grounds, and the beds of the neighbouring streams." He gives also the following general result of his inquiries:—"The gold of North Carolina is found,—1. In veins of quartz traversing the ancient primitive rocks, in very small quantity. 2. In veins of quartz traversing more recent primitive rock, in considerable quantity. 3. In veins of quartz traversing transition rocks, and also disseminated, in considerable quantity. 4. In soil produced by the decomposition of these three kinds of rock. 5. In the sand of a stream running over old red sandstone, in very minute quantity.

Silver and its ores are not of frequent or extensive occurrence. Dr. Dana states the curious fact that, near Portsmouth, New Hampshire, a mass, three or four inches in diameter, was found on the top of a wall, composed principally of native silver in filaments: the surrounding hills are chiefly greenstone. Mercury, which has been found native in Kentucky, occurs more plentifully as a sulphuret, (Bituminous Cinnabar, *Cleaveland*), in Ohio and the Michigan territory, more particularly on the shores of Lakes Michigan, Huron, St. Clair, Detroit River, and Lake Erie to the mouth of

^a Silliman's Journal, vol. vii

Vermilion River. It occurs in the soil in the form of a black and red sand, but is usually more abundant in banks of fine ferruginous clay. Near the mouth of Vermilion River, it is in the form of a very fine red powder, or in grains and small masses, disseminated in clay. It yields by distillation about 60 per cent. of mercury.

Copper in various forms occurs in the United States, but the ores do not appear to be brought into use. This metal is not found so abundantly on the shores of Lake Superior as it was anticipated it would be; but many specimens of copper ore have been found at different points in the Mississippi valley. Specimens of pure and malleable copper have been obtained; one of which, said to have been found in Illinois, thirty miles east of St. Louis, weighed three pounds. In the United States ores of iron are abundant. Those hitherto worked are chiefly the magnetic oxide, brown hematite, and the argillaceous oxide, particularly bog ore. The more important ores are the following, viz. in New Hampshire, the magnetic oxide; in Vermont, brown hematite, and bog ore; in Massachusetts, bog ore; in Rhode Island, brown hematite; in Connecticut, brown hematite, and bog ore; in New York, the magnetic, specular, and argillaceous oxides; in New Jersey, the magnetic and argillaceous oxides; in Pennsylvania and the States south and west, the magnetic oxide, brown hematite, and the argillaceous oxide. To these may now be added the carbonate of iron, which has recently been successfully smelted, and which produces iron having the carbonaceous impregnation of steel, whence it has been called steel ore. In New York, New Jersey, and Pennsylvania, the ore is found in an abundance, and of a quality not exceeded in Sweden. The Connecticut and Virginia iron is highly esteemed. More than 600 furnaces, forges, and bloomeries now exist in the United States; at which it is estimated that about 30,000 tons of bar iron, and about 60,000 tons of cast iron are annually made. In 1819, 20,000 tons of iron in bars and bolts were imported into the United States. In Ohio, are furnaces or forges, or both, in nine or ten counties. The ore sometimes occurs in nodules in clay, and sometimes it is a very ferruginous sandstone, occurring in beds.

The ores of lead are extensively found in the territories of the republic; and in Ohio, it is stated to have been met with native, forming slips, or slender prismatic masses, in crystallized galena. This mineral is found in various places from the Arkansas River to the north-west territory, the precise line of the Ozark and Shawnee Mountains, a tract which seems to constitute one of the most important and extensive deposits of lead hitherto known. On the Arkansas, the ore is smelted by the Osage Indians for bullets. To the northward, some valuable mines at Prairie du Chien are imperfectly worked by the proprietors of the soil. But the most important mines are those in Cape Girardeau district, commonly known as the lead mines of Missouri. The mining district is situated between two prominent ridges of sandstone, which bound the valley of Grand River, or the basin of Potosi. These ridges diverge in

their course northward, and are intercepted by the Merameg, which receives the waters of Grand River, and forms a boundary to the mining district in that direction. The area thus isolated by prominent topographical boundaries forms the metalliferous district, where mining operations were first commenced by the French about the year 1730, and have been continued, with more or less activity, to the present period. The consolidated portions of this area consist of two distinct deposits of limestone, a formation of sandstone, and another of red marl, the latter of which has, thus far, yielded the greatest quantities of lead ore. This metalliferous marl fills large veins and fissures in the inferior stratum of limestone, and there is reason to conclude that it is found, in some cases, in the position of subordinate beds. The galena and spars found in this marl are never abraded, but present all their crystalline characters unimpaired by the action of any accidental forces. The superior limestone is compact, shelly, and blackish, and seems to be above the metalliferous marl. Over the whole, and forming the surface of the country, is a heavy deposit of diluvial materials, pebbles of various formations, ferruginous loam, fragments of quartz, &c. This is the repository of those comparatively limited beds of abraded galena which are denominated gravel ore, and which has all the marks of diluvial action. Mixed with the more finely comminuted portions of rock, are found fragments of quartz, and lumps of lead ore, together with rounded masses of pre-existing strata representing the two great classes of formations, which most geologists have felt a necessity for recognizing under the names of primitive and secondary. Most of these masses are small, not exceeding a few ounces in weight, and few are found to exceed the size of a cannon shot. Some writers have been disposed to ascribe the ore found so abundantly, and so contrary to all analogy hitherto observed, in the veins of red marl or clay in the galeniferous limestone, to diluvial action likewise; but Mr. Schoolcraft positively assures us that there are none of those marks of abrasion which such a theory would require. The galena raised from the marl, he tells us, is as free from any marks of diluvial action, as if it had been fresh blasted from the most solid parts of the limestone. That the red marl never has been so disturbed appears also from the large vein-like beds of sulphate of barytes which traverse it. To assert that these very white, highly crystalline bodies of spar, often enveloping cubical masses of galena, and large beds of galena with the cubical pyrites and octahedral and crested iron ores of the basin of Potosi, could have been removed by any known forces amid the earthy mass in which they are found, without effecting a visible obliteration of their angles, would certainly be not very reasonable. The same series of formations extends in a particular direction, not only from the Merameg to the St. Francis, throughout the broadest part of the valley of Grand River, but even beyond it, to the southern limits of the state of Missouri, to the upper tributaries of White River, and to the Strawberry branch of Black River.

Towards the north also, this metalliferous red clay and its accompanying strata have been traced; whether uninterrupted or not, they certainly reappear, with some differences, on the Upper Mississippi, at the mines of Peosta and Dubuque. In the Shawnee mountains, in the southern part of the state of Illinois, mining was formerly attempted, but it is now abandoned. Tin has not been found in the United States. And although the ores of zinc, antimony, and many other metals occur in various localities, they do not possess sufficient importance to require further notice here.

Coal is known to exist in the United States in great quantity, and has been sought after to a considerable extent, although the abundance of wood has hitherto impeded the working of the mines to their full capability. The kinds of coal found in this extensive territory are very various, and the localities in which they are met with are of corresponding diversity. They are classed by Professor Eaton under the following heads:—First, The genuine anthracite, or glance coal, found in the transition argillite, as at Worcester, (Massachusetts,) Newport, (Rhode Island;) also in small quantities in the north and south range of argillite along the bed and banks of the river Hudson. Second, Coal destitute of bitumen, usually called anthracite, but differing greatly in its character from the anthracite found in argillite. It may be called anasphaltic coal. This is embraced in a slate rock, being the lowest of the lower series of secondary rocks. This coal formation is equivalent to the great coal measures of Europe. There is always bitumen in a greater or less proportion, though the proportion is often exceedingly small.^b The principal American localities of this coal hitherto discovered are in the state of Pennsylvania; as at Carbondale, Lehigh, Lakawaxen, Wilkesbarre, &c. Third, The proper bituminous coal, as at Tioga, Lycoming, &c. This coal is embraced in a slate rock, which is the lowest of the series of upper secondary rocks. The fourth formation is the lignite coal, which is found in a very extensive stratum in the state of New Jersey along the south shore of the bay of Amboy. The second species of coal is becoming of considerable importance in the United States, and rising into high estimation, as peculiarly adapted to various useful purposes. When once ignited, it burns with a strong and durable heat; and indeed much of the difficulty of kindling it may be avoided by the addition of a certain quantity of charcoal, and by a strong current of air judiciously managed. As it is composed almost entirely of carbon, without bitumen, or even sulphur, except from the accidental presence of pyrites, it burns without caking, and is very useful in those operations where a durable and uniform degree of heat is required. Hence its use in smelting iron ore, and in the preparation of steel; in burning limestone; in salt-works, and other processes of evaporation; in distillation, preparing malt, &c. &c. But as it burns without flame, it cannot be employed in reverberatory

^b This is called in question by Dr. Silliman, who asserts that he has repeatedly distilled different varieties of this coal without obtaining any bitumen.

furnaces; and, as it does not cake, it cannot be used by the smith for those purposes of the forge where a hollow fire is required. It has been common to consider this anasphaltic coal as a true anthracite, and the strata in which it is found as properly belonging to the transition class; but it would be difficult to admit this in conjunction with such a profusion of vegetable remains as occur in connexion with it. In visiting several of the mines of the Susquehanna and Lackawanna, the naturalist is gratified by seeing the vast deposits of vegetable impressions and remains which accompany the coal, usually in the slate that forms the roof, and occasionally in that of the floor; they exist also, although in a smaller degree, in the sandstone, and sometimes, but much more rarely, even in the coal itself. There are instances where they fill the slate for a space of ten feet in thickness, and, making due allowance for the compression which they have undergone, the original deposits must have occupied a vastly greater thickness than their relics do now. The impressions are very perfect, indicating repose and calm at the time of their deposition, and excluding the possibility of transport from distant countries. There are many species of ferns, none of them, as it is said, modern, and most or all of them tropical; there are impressions, sometimes several feet long and broad, of the bark of gigantic vegetables, some botanists say they are palms; occasionally there are entire limbs, carbonized; frequently, broad leaves are found of six or seven inches or more in diameter; culmiferous plants are numerous, and so are the aquatic algæ, and rushes. The leaves of the plants are usually in full expansion, the most delicate parts of their structure being exactly preserved or copied; and according to Mr. Cist, flowers of a stellated form are occasionally found. Professor Hitchcock believed that he had found a flower with unfolded petals. If all these remains are found in transition rocks, it is certainly a new feature in geological science; if, on the contrary, according to Professor Eaton, the strata in which the anasphaltic coal lies are of the elder secondary, then this class of rocks must be of more extensive occurrence on the eastern side of the Appalachian Mountains than has been hitherto supposed.

We cannot withhold from our readers the following speculations of a scientific observer on the probable formation of these interesting beds:—"Is the anthracite coal," says Dr. Silliman, "of vegetable origin? Does the fibrous charcoal, frequently found between its layers, owe its origin to the vegetable skeleton? There seems no more reason to doubt the latter fact, than that the vegetable impressions found in and upon the coal and its rocks have the same origin. But did the mass of coal arise from vegetables? This has been admitted by many persons with respect to bituminous coal, but, I have heretofore been inclined to attribute anthracite coal to a direct mineral creation; the opinion of its vegetable origin appears however to me less improbable, since I have seen with my own eyes the incontrovertible and abundant proofs of vegetable life in these mines. We are obliged, from the facts here seen, to

go a great extent in admitting vegetation in connexion with this coal. But if we seek to trace the entire masses to vegetable matter, how shall we admit the existence and accumulation of the enormous quantities that must have grown or been collected on the spot, to form such stupendous beds, ten, twenty, and thirty feet in thickness, and repeated, again and again, with all their attendant rocks and impressions? But, the plants, from ferns and liliputian vegetables to those of great size, did grow, and were deposited, in connexion with these coal strata, for there we find their unquestionable and exuberant remains; and they were produced again and again, for we find them in the different deposits, as the coal strata succeed each other at different depths. As the vegetables, whose organized forms or impressions we actually find, did exist in these places, could there, by any possibility, have been enough accumulated to form the coal beds? If it is difficult to answer in the affirmative, perhaps it is not quite certain that we must reply in the negative; at least it is not, I must confess, quite so certain as I once thought it to be.

“But, supposing the vegetable matter to have existed in sufficient quantity to have formed the coal; why, if so formed, is there in general no appearance of ligneous structure, of vegetable organization in the coal itself? On this point it may be suggested, that the vegetable matter may have been so decomposed, as to lose in a great degree its organization; it may have been suspended or deposited in water along with the same earthy matter which formed the accompanying rocks, and particularly the coal slate, and this earthy matter may have been deposited along with and among the particles as well as the masses of coal, now in minute proportion, as we actually find it in burning even the purest anthracite, the form and structure of whose layers is delicately exhibited by the earthy skeleton, commonly called ashes, which remains: now the earthy matter may have prevailed to a greater degree, and then the coal is more impure, less combustible, and affords a more abundant residuum; again, the earthy matter may have prevailed still more, and then the deposit is a carbonaceous slate; and lastly, the carbon may have been supplanted by the earthy matter, and then seams of slate would be formed as we actually find them in the coal beds. Without some such process, it seems difficult to account for the varying proportions of earth and carbon which we find blended in the anthracites; the extremes being the purest coal on the one hand, and slate on the other, and between these there appear to be innumerable mixtures or combinations of earth and coal in different proportions.

“Perhaps the reason why the vegetables found in the slate retain their organized form, is found in the fact, that the fine sedimentary earths, the silicious and argillaceous, of which the slate is composed, may have enveloped the plants too suddenly to permit them to undergo decomposition, and thus to exhibit an impalpable carbon; while their forms would, of course, be distinctly impressed upon the yielding plastic

matter of the slate, rendered soft perhaps by diffusion in water. Pressure is also to be taken into account in reasoning upon the probable obliteration of the organic structure; this force would operate in proportion to the progress of the accumulation, whether of coal strata, or of those of superincumbent rock."^c

The appearance of the Tioga, or bituminous coal, differs so little from the well-known character of the best Liverpool or Newcastle coal, that it scarcely requires a description. Its colour is velvet black, with a slight resinous lustre, its structure is slaty or foliated, and its layers, as in the best English coal, divided into prismatic solids, with bases slightly rhomboidal; it is easily frangible and slightly soils the fingers. The specific gravity is 1,287. It burns with a bright flame and considerable smoke, with a slight bituminous smell, a sort of ebullition taking place, and, as the heat increases, an appearance of semifusion, leaving a light residue or scoria.

In 100 parts of coal are, Carbon	66	7
———— Bitumen	30	43
———— Earth	3	50
	100	00

It thus appears that the Tioga coal is of an excellent quality, fully equal to the best Liverpool coal, and fit for all the purposes of manufactures, but requiring to be converted into coke before it can be made use of in the smelting of iron ore, or in many other processes in metallurgy and the arts. This should be always kept in view, and is the principal distinction between it and the anthracite or non-bituminous coal of Rhode Island and Pennsylvania. Each of them has its distinctive and valuable qualities. While the anthracites consist nearly of from ninety to ninety-seven per cent. of pure carbon, the Tioga coal contains only 66,7, the residue being chiefly bitumen, a substance which renders it extremely valuable in domestic use, and in the reverberatory furnaces, but inapplicable to many other purposes which the experienced artist can easily comprehend. The bituminous coal occurs in a series of beds of sandstone, accompanied by shale or argillaceous slate, abounding with vegetable impressions and resting on secondary limestone containing fossil remains. In the neighbourhood of the coal mine is found abundance of iron ore, of that species which is called ironstone or argillaceous iron ore, precisely of the same character as that which accompanies the beds of coal in England.

Graphite, or plumbago, commonly but improperly called black lead, occurs extensively in primitive and transition rocks; from that which is obtained in New York, excellent pencils have been made. There are also numerous localities of petroleum, or mineral oil. It usually floats on the surface of springs, which in many cases are

^c Silliman's Journal, vol. xviii.

known to be in the vicinity of coal. It is sometimes called Seneca or Genessee oil. In Kentucky, it occurs on a spring of water in a state sufficiently liquid to burn in a lamp; it is collected in considerable quantities, and sold at twenty-five cents, or about one shilling, a gallon.

Salt appears to be very abundant in the United States. We have already noticed the indications of a gypsum and rock salt formation along the east and south-east boundaries of the Mississippi Valley bordering on the transition rocks of the mountain chains, and in strata identical with the saliferous sandstone of Europe; and through the whole extent of this line, from the state of New York across the Mississippi, into the Arkansas country, salt-works have been more or less successfully undertaken. The salt, however, has never been found in the mass; it is obtained from springs, or more frequently from wells or borings made for the purpose. The brine varies considerably in its strength. Professor Eaton has suggested doubts whether masses of salt really exist. He conceives that an apparatus for the spontaneous manufacture of salt may be found within the bosom of the earth, in those rocks which contain the necessary elements; and his opinion has the support of an experiment which we shall give in his own words. "I took a specimen of the rock called water limestone from a hill adjoining Nine-mile Creek, a few miles west of the Onondaga salt-springs. If this specimen be pulverized and examined ever so minutely, it presents nothing to the senses resembling common salt, (muriate of soda). I do not mean that the elementary constituents cannot be found in it, but I do not propose here to have any reference to a chemical analysis of the rock. On exposing a fresh fracture of a specimen from this rock for two or three weeks in a damp cellar, it shoots out crystals of common salt, sufficient to cover its whole surface. This proves conclusively, that one rock at least, reposing over the floor of the salt springs, contains in itself the materials for the spontaneous manufacture of salt. And there may be many kinds of rock besides the water limestone, which contain the elementary constituents of common salt." Subsequently, however, Mr. Eaton has found reason to think that salt has existed in a solid state in cubical crystals, the hollow forms of which he discovered abundantly in the lias and saline rock of the west, and it seems still to be highly probable that masses of salt exist in the neighbourhood of the salt-springs. The brine contains, besides the muriate of soda, a considerable proportion of muriate of lime and magnesia. Recently also bromine has been detected in the brine of Salina by Dr. Silliman.

In addition to those which are strictly saline, mineral waters of various properties are of frequent occurrence in the United States. Our notices of them in this department of our work must be chiefly confined to their mineralogical character. The mineral waters of Saratoga, which have become so celebrated for their medicinal qualities, are situated in a low marshy valley, along the termination of a ridge of

secondary limestone; they discover themselves in a bed of blue marl, which covers the valley throughout its whole extent, and to an unknown depth. On digging into this marl, to any considerable distance, in almost any direction, a mineral water is sure to be found; in some places, at the depth of six or eight feet, it is discovered issuing from a fissure or seam in the underlying limestone, while at other places, it seems to proceed from a thin stratum of quicksand, which is found to alternate with the marl at distances of from ten to forty feet; at this depth the marl is interrupted by a layer of boulders of a considerable size, beyond which no researches have yet been made. All the mineral fountains that have yet been examined in this valley, and there are more than twenty, are found to possess uniformly the same qualities, differing only in what is usually termed their strength, or, in other words, in the quantities of the articles which the water of each is found to hold in solution. They belong to a class which may with propriety be styled the *acidulous saline chalybeate*. The best analyses agree in demonstrating that they contain the following ingredients, viz.—carbonic acid, muriate of soda, carbonate of soda, carbonate of lime, carbonate of magnesia, and carbonate of iron, together with a very minute quantity of silica and alumina. To these ingredients recent investigations have added iodine, hydrobromic acid, and potash. The surface of Hamilton spring, at Saratoga, is constantly agitated by the escape of large quantities of gas; and as the water passes off, it leaves on the surface of the earth an abundant deposit of a brownish colour, evidently ferruginous and calcareous. The water, when first dipped from the fountain, is remarkably clear and sparkling, but on standing exposed to the atmosphere, soon becomes turbid. It is saline and acidulous to the taste, and when taken to the quantity of five or six half pints, is usually powerfully cathartic and diuretic. The temperature at the bottom of the well is uniformly at fifty degrees.

One gallon, or 231 cubic inches, of this water, when first taken from the well, contains

Muriate of soda	grains 297.3
Hydriodate of soda	3.
Carbonate of soda	19.21
Carbonate of lime	92.4
Carbonate of magnesia	23.1
Oxide of iron	5.39

grains 440.4 together

with a minute quantity of silica and alumina, probably 0.6 of a grain, making the solid contents of a gallon amount to 441 grains.

Carbonic acid gas	316 cubic inches.
Atmospheric air	4
Gaseous contents in a gallon	320 cubic inches.

At Albany, in the summer of 1826, in boring for pure water for a brewery, a mineral spring was accidentally opened. The sensible qualities of this water have a great resemblance to those of the Congress spring at Saratoga. Its temperature is uniformly from 51° to 52° of Fahrenheit at all seasons of the year; its specific gravity, when taken with great care, and after repeated trials, was found to be as 1010 to 1000. The taste of the water is purely saline, somewhat pungent, and not at all disagreeable; but those who are best acquainted with it think it by no means so stimulating and pungent as the waters of the Congress spring; it has no sensible chalybeate taste, and no perceptible smell which could lead to the suspicion of its holding sulphuretted hydrogen gas in solution. As to the gas which ascends through the tube and has been described as inflammable, it appears to be either hydrogen or carburetted hydrogen, similar to the gas which is so frequently observed to accompany the saline springs in the state of New York, but which passes through the water without giving it any sensible properties. When this water, which is at first so clear and pellucid, is allowed to remain for a few hours in a glass, the gas which is extricated from it adheres, in the form of innumerable air bubbles, to the inside surface of the glass; in a short time after, the water loses its transparency, a thin pellicle appears on its surface, which has a slightly iridescent appearance; by degrees the water becomes perfectly opaque, the pellicle falls to the bottom, which, as well as the sides of the glass, is covered with a light brown powder, which adheres firmly to it. The water, after this, recovers its former transparency, but loses its agreeable, pungent, and acidulous taste, becoming perfectly vapid, and having no other taste but that of a solution of marine salt in water. Dr. Mead gives the following comparative analysis of the mineral contents in one pint of water of Congress spring at Saratoga, the public well at Ballston, and the new spring at Albany.

<i>Congress Spring.</i>		<i>Public Well, Ballston.</i>		<i>Albany Water.</i>	
	<i>Grs.</i>		<i>Grs.</i>		<i>Grs.</i>
Muriate of soda. . . .	51 1-2	Muriate of soda. . . .	21	Muriate of soda. . . .	59
Carbonate of lime . .	13 3-4	Carbonate of lime . .	4 5-8	Carbonate of soda . .	5
Carbonate of magnesia	8 1-2	Carbonate of magnesia	5 5-8	Carbonate of lime . .	4
Muriate of lime. . . .	1 3-4	Muriate of lime. . . .	1 3-4	Carbonate of magnesia	1 1-2
Muriate of magnesia	2 1-2	Muriate of magnesia	3-4	Carbonate of iron . .	1
Oxide of iron	1-4	Oxide of iron. . . .	1-2	Muriate of lime. . . .	1-2
Total	78 1-4	Total	34 1-2	Total	71.
<i>Carbonic Acid Gas.</i>		<i>Carbonic Acid Gas.</i>		<i>Carbonic Acid Gas.</i>	
Cubic inches	33.	Cubic inches	30 1-2	Cubic inches	25.

A mineral spring exists in Cliff-street, in the city of New York, of which we find the following analysis:—

TOPOGRAPHY OF

Carbonate of ammonia	5.00
Carbonate of lime	29.50
Carbonate of magnesia (F.) 33.7 + 1 gr. (E.)	34.70
Carbonate of potassa	3.00
Chloride of magnesium	1.92
Chloride of sodium, (C, b,) 4.98 grs. + 52.6 grs. (G, b,)	57.58
Sulphate of magnesia	6.00
Sulphate of soda	5.46
Sulphate of lime	0.25
Silica	0.20
Oxide of iron, (D,) (F,)	1.55
Extractive matter	5.
	<hr/> 150.16

GASEOUS MATTER.

	Cub. In.
Carbonic acid	68.57
Atmospheric air	4.57
	<hr/> 73.14

At Bedford, in Pennsylvania, there is a very copious supply of mineral water, issuing from the foot of a cliff by no less than seven highly-medicinal springs, all within the radius of a stone's throw, and some of them containing iron and sulphur. The Berkely springs, at Bath, in Virginia, are chiefly magnesian.

To this account of the principal mineral waters must be added a notice of the various gaseous matters which are likewise met with in the United States. In the state of New York, nitrogen gas is found issuing from the earth. The gas appears to issue from every part of a low hill comprising four or five acres of ground; for wherever there is water, it becomes manifest by bubbling through it. It issues abundantly through three springs, from the clean gravelly bottom of each; but it does not combine with the water in either of them. The gas probably accompanies the water from a considerable depth, since the water of the springs is not increased by the greatest spring and fall freshets. Sulphuretted hydrogen gas escapes in large quantity from varieties of argillite and graywacke, containing soft and fine-grained iron pyrites, by the decomposition of which it is produced. It burns along the surface of the water from which it issues with a bright red flame by day-light. The most interesting water of this kind is Lake Sodom, in a place nicknamed Satan's Kingdom. The bottom is grass-green ferriferous slate; the sides are white shell marl, and the brim is black vegetable mould. The water is perfectly limpid. The whole appears to the eye like a rich porcelain bowl filled with limpid nectar; but to the

taste it is the true Harrowgate water, and readily convinces the visitor of the fitness of the name. Carburetted hydrogen gas issues from a stream in the neighbourhood of the Erie canal, at the rate of a gallon per minute, through the gravelly soil at the bottom. The carbonic acid gas, which is so abundant in the Saratoga springs, is produced from an argillite, which contains large quantities of fine granulated pyrites and finely disseminated calcareous spar. It is a well-known fact that this variety of pyrites produces sulphuric acid by the aid of water. The acid being in immediate contact with the spar, gypsum is produced, and carbonic acid is disengaged at considerable depths in the earth, and under great mechanical condensation, which causes its combination with water in such large proportions. When the water issues from the earth, the pressure which forces it up to the surface being taken off, it parts with that portion of the carbonic acid which is combined with it by the effect of pressure; while the solution of the carbonate of lime, which is caused by the carbonic acid, can no longer be continued, so that it is deposited in the form of tufa. Such is the origin of what is called the High Rock at Saratoga. Sulphuric acid in large quantities is produced in a diluted and in a concentrated state in the town of Byron, Genessee county, thirty miles west of Genessee river, and ten miles south of the Erie canal. Here is a hillock 230 feet long and 100 feet broad, elevated about five feet above the surrounding plain. It consists of a kind of ash-coloured soil, containing immense quantities of exceedingly minute grains of iron pyrites. It is mostly covered with a coat of charred vegetable matter, four or five inches thick, and as black as common charcoal. The same charred matter extends some distance from the base of the hillock on all sides. It appears as if it had been recently burned over, though it is in a meadow where no other traces of fire exist. Its charred state is caused wholly by the action of the sulphuric acid. Several holes have been dug in the hill, which now contain turbid diluted sulphuric acid, as do the depressions in the meadow ground surrounding it. Should curiosity or interest induce the proprietor to dig a trench about it, or to make an artificial pond on one side, which might be occasionally drained and cleaned, a bath of diluted sulphuric acid might be constructed. The strength of the acid increases in a drought. It appears to be perfectly concentrated, and nearly dry, in its combination with the charred vegetable coat. In this state it is diffused throughout the whole piece of ground, which presents a charred appearance to the depth of twelve or fifteen inches, and in some places three or four feet. It is everywhere the strongest at the surface. The strength of the acid combined with the vegetable matter, and several other circumstances enumerated, make this locality very interesting. But there is another, about 100 rods west of Byron hotel, being two miles east of this, which, in one point of view, is still more remarkable; it is a spring, which issues from the earth in quantities sufficient for turning a light grist mill. Such an immense sulphuric acid laboratory is here conducted

by nature, that all the water which supplies this perennial stream is sufficiently acid to give the common test with violets, and to coagulate milk. The continual formation of the sulphates of lime, iron, and magnesia, is also traced to a considerable extent.

It is impossible for us, consistently with the character of the present work, to enter more minutely into the peculiarities of American mineralogy. We can only say that it affords much both to adorn the cabinet of the curious, and to enrich the collection of the scientific, as well as to furnish materials for commerce, manufactures, and the arts. There are found crystals of great beauty, we might almost say magnificence; for their dimensions, in many cases, are certainly extraordinary, and seem to correspond with the gigantic scale on which so many of the works of nature there have been produced. We have been struck with the testimony of Mr. Schoolcraft to the recent formation of quartz crystals.¹ They have been found, it appears, upon the handle of a spade, and the edge of some old shoes, which had been left for some years in an abandoned lead mine of the Shawnee Mountains. Many minerals which are rare in Europe are found abundantly, and often in finer forms, in the United States; some, which have subsequently been detected elsewhere, were first discovered there, and not a few may still be claimed by that country as its peculiar treasure. We shall now close this chapter with the observation of Dr. Mead, that in general a great resemblance can be traced between the minerals of North America and those which have been found in the north of Europe, particularly in Norway and Sweden. This resemblance is stated to exist, not merely in the properties of the minerals themselves, but in their geological character and geognostic situation throughout the whole series. It is observed more particularly in those specimens which are found to accompany the primitive formation at Arendal, in Norway; it is not confined however to the primitive range of mountains alone, as the same resemblance can be frequently traced, on comparing American minerals with those of Piedmont and even of the Hartz Mountains. Among the principal minerals of the north of Europe, there are none which are of more importance than the ores of iron, for which Norway and Sweden are so remarkable; and every variety of this mineral which has been met with there has been found in the same class of rocks in America, in the greatest abundance, and of equally good quality. Titanium is one of those metals which have been found more particularly in the north of Europe. It is said to occur frequently in those primitive aggregates which contain beds of magnetic iron ore, associated with augite, scapolite, epidote and hornblende, precisely the same rocks in which we find it in this country. There is scarcely any part of Europe where a greater variety of augites are found, than in Norway and Sweden; nor can there be any class of minerals in which the similitude between the specimens from those countries and America is more striking.

CHAPTER III.

BOTANY.

THE vegetation of the United States is as various as the climate and the soil. In the Floridas grows a majestic species of palm, (*chamærops palmetto*); and the orange, the cotton, the indigo, and even the sugar cane, may be cultivated there to great perfection and advantage. In the Carolinas and the Floridas the eye of the traveller is charmed with the beauty and grandeur of the forest trees, the various species of evergreen oak, the numerous kinds of pine, walnut, and plane, the majestic tulip tree, (*liriodendron tulipifera*), the curious deciduous cypress, and the superb magnolias. A different vegetation occurs in the more northerly of the states; and what renders the botany of this district peculiarly interesting to the British naturalist is, that a very large proportion of its vegetable productions may be assimilated to our own climate. The oaks and firs of this region now decorate many of our plantations and pleasure grounds; and as the quality of their timber comes to be better known and appreciated, may well occupy a conspicuous place in our woods and forests. Our shrubberies owe their greatest beauty to the various species of kalmia, azalea, rhododendron, robinia, cornus, sambucus, ceanothus, and lonicera, to the syringa, the flowering raspberry, and a hundred others, which flourish as if they were the aboriginal natives of our soil; whilst the gardens of the curious are indebted for many of their choicest productions to the herbaceous plants of North America, the greater number being remarkable for the brilliancy of their blossoms, and not a few, such as the dionæa and sarracenia, being ranked as amongst the most singular of all vegetable productions in their structure.

In the rapid survey we shall have to take of this wide and interesting field, our attention is naturally turned, in the first instance, to the forest or timber trees. We have already seen how large a portion of territory is covered with native forests, among which, varieties of the oak, the walnut, the maple, the birch, the ash, the elm, the chesnut, the beech, the pine, and the cypress, are the most prominent. It is a general observation, that the trees of the United States are larger, taller, and more

of them useful for timber, than those of Europe. As to height, it is observed by Michaux, that, while in France only thirty-seven species of trees arrive at thirty feet, in the transatlantic republic, one hundred and thirty exceed that elevation. A general idea of the American forest has already been given; we shall now select the principal trees for more particular notice.

In the greater part of North America, as well as in Europe, there is no tree so generally useful as the oak. It seems also to have been multiplied in proportion to its utility, since it is indigenous to many climates, and diversified into many species. In America are found forty-four species, which are all comprised between the 20th and 48th degrees of north latitude; in the old continent are enumerated only thirty, which are scattered on both sides of the equator, beginning at the 60th degree north. Some of the species in the United States are small, scarcely larger than shrubs; but others are of great size and beauty, reaching an elevation of from sixty to eighty feet. The white oak is preeminent among these. It is a larger and handsomer tree in the Mississippi valley, than in the Atlantic country; but is less firm, hard, and durable. The same may be said of the swamp white oak, (*quercus aquatica*), which grows of a prodigious height, size, and beauty. The black oak, with large and small leaves; the yellow oak, and the post oak, grow on cold, level, wet, and clayey lands. The last receives its name from the durability of posts made of it in the ground. It is said to be the most durable timber of the oak kind in the upper country for boat and ship building. South of thirty-one degrees, in the lower country along the coast of Florida, extending into the interior from sixty to a hundred miles, and along the shore of Louisiana for half that depth, is the region of the live oak, (*quercus sempervirens*.) It is not found west of the Sabine. It is not a tall, but a spreading tree, with long lateral branches, looking at a distance like an immense spread umbrella. It is extremely hard, compact, and difficult to cut; and when green, is so heavy as to sink in the water. It is almost incorruptible. The islands on the shore of the gulf furnish this tree in abundance. It is so difficult to cut down, to burn, or otherwise to clear from the soil, that in these islands, which have recently begun to be in request as sugar lands, this tree, elsewhere considered so valuable for ship timber, is regarded as an incumbrance, though still valuable for its acorns, affording the finest range for swine. The value of this timber in ship-building is well known. Its trunk is sometimes undivided for eighteen or twenty feet, but often ramifies at half that height; and at a distance, it has the appearance of an old apple-tree or pear-tree. The live oak does not afford large timber; but its wide and spreading branching summit makes amends for this disadvantage, by furnishing a great number of knees, of which there is never a sufficient quantity in the dock-yards. The consumption has become threefold within twenty years, in consequence of the growing development of American commerce: hence the price has doubled, and the species is rapidly diminishing. The clearing of

the islands for the culture of cotton, which they yield of a superior quality, has contributed greatly to its destruction. It is already difficult to procure sticks of considerable size in the southern states. As the live oak, from the peculiarities of its constitution, is multiplied with difficulty, Michaux considers its disappearance throughout the United States, within fifty years, as nearly certain. It will then be found only in the form of a shrub, like the *quercus ilex*, which formerly skirted the southern coast of France and Italy.

In the variety of trees which compose the forests of North America east of the Mississippi, the walnut ranks after the oak among the genera whose species are most multiplied. In this particular, the soil of the United States is more favoured than that of Europe, to no part of which is any species of this tree indigenous. There are distinguished in the United States ten species of walnut, and others are expected to be discovered in Louisiana. There is room to hope, also, that species may be discovered susceptible, like the pacanenut, of speedy melioration, by the aid of grafting and of attentive cultivation; to which consideration some weight is given by the fact, that the fruit of the common European walnut, in its natural state, is harder than that of the American species just mentioned, and inferior to it in size and quality. Throughout the United States, the common name of hickory is given to some species of walnut. This common appellation is due to certain properties of their wood, which, however modified, are possessed by them all, in a greater degree than by any other tree of Europe or America. The grain of the wood is coarse and open. Its chief properties are great weight, strength, and tenacity, a speedy decay when exposed to heat and moisture, and peculiar liability to injury from worms. According to these prominent excellencies or defects, the uses of their wood are determined. Hickory timber is employed in no part of the United States in the building of houses, because it is too heavy, and soon becomes worm-eaten. But if its defects forbid its employment in architecture, its good qualities, on the other hand, render it proper for many secondary uses, which could not as well be subserved by any other wood. Of the numerous trees of North America east of the Apalachian Mountains, none except the hickory is perfectly adapted to the making of hoops for casks and boxes. For this purpose, vast quantities of it are consumed at home, and exported to the West India Islands; and when it is considered how large a portion of the produce of the United States is packed in barrels, an estimate may be formed of the necessary consumption of hoops. All the hickories are very heavy, and in a given volume, contain a great quantity of combustible matter; they produce an ardent heat, and leave a heavy, compact, and livid coal. In this respect, no wood of the same latitude in Europe or America can be compared to them. The use of the young hickories for hoops, and of the old for fuel, threatens the speedy extermination of them, without much care; the more so, as they are of slow growth, and never sprout twice from the

same root. Pignut hickory is loaded with a nut whose shell is softer than an acorn, and the meat to the pressure of the fingers yields a copious oil, of use in the finer kinds of painting. It is acrid and bitter to the taste. The large walnut is a fruit of the size of an apple, and is common in the middle regions of the central valley. The peccan, or pacanenut, is found far up the Mississippi and Illinois, and thence to the gulf of Mexico. It is a tree of beautiful form and appearance, and the most useful of the whole class, except the black walnut, for building and for rails. Its nut is long, cylindrical, and olive-shaped, with a shell comparatively soft. The meat lies in two oblong lobes, is easily taken out entire, and excels all other nuts in delicacy of flavour. Unfortunately it soon becomes rancid, and is seldom found in the Atlantic country in its original perfection. The black walnut is a splendid tree, and often grows to a great size. Its nuts much resemble those of the white walnut, or what is called butter-nut in the northern states. It is much used in the middle regions of the country for ornamental finishing of houses, and cabinet furniture; and when rubbed with a weak solution of nitric acid, can be distinguished from mahogany only by an experienced eye.

The maples in general are lofty and beautiful trees, capable of enduring an intense degree of cold. They form in the north of the old and of the new continent extensive forests, which, with those of the beech, appear to succeed the spruce, the larch, and the pine, and to precede the chesnut and the oak. The North American species are more numerous than those of Europe. The wood speedily ferments and decays when exposed to the weather; it is liable to be injured by worms, and hence it is unfit for building: it possesses properties, however, which compensate in part for these defects, and which render it useful in the arts and in domestic economy. Perhaps the most interesting tree of this genus is the sugar maple, which covers a greater extent of the American soil than any other species of this genus. It flourishes most in mountainous places, where the soil, though fertile, is cold and humid. Besides the parts where the face of the country is generally of this nature, it is found along the whole chain of the Alleghanies to their termination in Georgia, and on the steep and shady banks of the rivers which rise in these mountains. The sugar maple reaches the height of seventy or eighty feet, with a proportionate diameter; but it does not commonly exceed fifty or sixty feet, with a diameter of twelve or eighteen inches. Well-grown thriving trees are beautiful in their appearance, and easily distinguishable by the whiteness of their bark. When cut at the proper season, it forms excellent fuel, and its ashes are very rich in the alkaline principle. The work of making sugar from the juice of the maple is commonly commenced in the month of February or the beginning of March, while the cold continues intense, and the ground is still covered with snow. The sap begins to be in motion at this season, two months before the general revival of vegetation. In a central situation, lying convenient to the

trees from which the sap is drawn, a shed is constructed, called a sugar camp, which is destined to shelter the boiler, and the persons who tend them, from the weather. An auger three quarters of an inch in diameter; small troughs to receive the sap;

bes of elder or sumee eight or ten inches long, corresponding in size to the auger, and laid open for a part of their length; buckets for emptying the troughs and conveying the sap to the camp; boilers of fifteen or eighteen gallons' capacity; moulds to receive the syrup when reduced to a proper consistency for being formed into cakes; and, lastly, hatchets to cut and split the fuel, are the principal utensils employed in the operation. The trees are perforated in an obliquely ascending direction, eighteen or twenty inches from the ground, with two holes four or five inches apart. Care is taken that the augers do not enter more than half an inch within the wood, as experience has shown the most abundant flow of sap to take place at this depth. It is also usual to insert the tubes on the south side of the tree. A trough is placed on the ground at the foot of each tree, and the sap is every day collected, and temporarily poured into casks, from which it is drawn out to fill the boilers. The evaporation is kept up by a brisk fire, and the scum is carefully taken off during this part of the process. Fresh sap is added from time to time, and the heat is retained till the liquid is reduced to a syrup; after which it is left to cool, and then strained through a blanket, or other woollen stuff, to separate the remaining impurities. Three persons are found sufficient to tend 250 trees, which give a thousand pounds of sugar, or four pounds from each tree. The sugar thus manufactured is superior to the brown sugar of the colonies, at least to such as is generally used in the United States; its taste is as pleasant, and it is as good for culinary purposes, and when refined, it equals in beauty the finest sugar consumed in Europe; it is made use of, however, only in the districts where it is made, and there only in the country. The cheapness of cane sugar, the abundance and excellence of its growth in the lower country, and the diminished expense of transporting it to the upper states in consequence of the multiplication of steam boats, have diminished the demand for what is called country sugar, and the manufacture of it has considerably decreased.

The sycamore, a species of maple, is described as the king of the western forests. It is the largest tree in the woods, and rises in the most graceful forms, with vast spreading lateral branches, covered with bark of a brilliant white. These hundred white arms of the sycamore, interlacing with the branches of the other forest trees in the rich alluvions, where it delights to grow, add one of the distinguishing traits of grandeur and beauty to the forest. A tree of this kind near Marietta measured fifteen feet and a half in diameter. Judge Tucker, of Missouri, cut off a section of the hollow trunk of a sycamore, and applied a roof to it, and furnished it for a study. It was perfectly circular; and when fitted up with a stove and other arrangements, made an ample and convenient apartment. This gigantic section of

a tree was conveyed on sleds prepared on purpose, and drawn by a sufficient number of oxen to its resting-place. It is very common to see this beautiful tree, on the margin of rivers, from ten to fifteen feet in circumference.

Seven species of the birch have been discovered in North America, five of which may be ranked among tall trees. The northern extremity of the new continent, like that of the old, appears to be the native climate of this tree, which is less frequent towards the south; and it thus becomes of great interest and importance to man, in regions destitute of many of the larger vegetables. One of the most useful species is the canoe birch, which is abundant in the forests of Maine, New Hampshire and Vermont, a tract very much resembling Sweden and the eastern part of Prussia. The largest size of the canoe birch is seventy feet in height and three feet in diameter; and the wood is quite equal, if not superior, to the white birch of Sweden and Norway. On trees not exceeding eight inches in diameter, the bark is of a brilliant white, like that of the white birch of Sweden, and, like that too, it is almost indestructible. Trees long since prostrated by time, are often met with in the forests, whose trunk appears sound, while the bark contains only a friable substance, like vegetable mould. This bark, like that of the European species, is applied to many uses: in Canada and the district of Maine, the country people place large pieces of it immediately below the shingles of the roof, to form a more impenetrable covering for their houses; baskets, boxes, and portfolios are made of it, which are sometimes embroidered with silk of different colours; divided into very thin sheets, it forms a substitute for paper; and, placed between the soles of the shoes and in the crown of the hat, it is a defence against humidity. But the most important purpose to which it is put, and one for which it is equalled by the bark of no other tree, is the construction of canoes. To procure proper pieces, the largest and smoothest trunks are selected: in the spring two circular incisions are made, several feet apart, and two longitudinal ones on opposite sides of the tree; after which, by introducing a wooden wedge, the bark is easily detached. These plates are usually ten or twelve feet long, and two feet nine inches broad. To form the canoe, they are stitched together with fibrous roots of the white spruce, about the size of a quill, which are deprived of the bark, split and suppled in water. The seams are coated with resin of the balm of Gilead. Great use is made of these canoes by the savages and by the Canadians, in their long journeys into the interior of the country: they are very light, and are easily transported on the shoulders from one lake or river to another, which is called the portage. A canoe calculated for four persons with their baggage, weighs from forty to fifty pounds; some of them are made to carry fifteen passengers. The black birch, called also sweet birch, cherry birch, and mountain mahogany, abounds in the middle states, particularly in New York, Pennsylvania, and Maryland; farther south it is confined to the summit of the Alleghanies, on which it is found to their

termination in Georgia, and to the steep and shady banks of the rivers which issue from these mountains.

Except the oak, no tree of Europe, or of North America, is so generally useful as the ash. The distinguishing properties of its wood are strength and elasticity; and it unites them in so high a degree, that, for many valuable purposes, it could not be replaced by any other tree. This remark is particularly applicable to the white ash of the United States, which is the largest species, the most multiplied, and the most useful in the arts. It is also the most remarkable for the rapidity of its growth, and the beauty of its foliage. It is most abundant north of the Hudson, and a cold climate seems most congenial to it. It sometimes attains a height of thirty feet, with a diameter of three feet, and is one of the largest trees of the United States.

The elms of the United States, though some of them of magnificent growth, are not of equal value with the common elm of Europe. The principal species is the white elm, which has been observed from Nova Scotia to the extremity of Georgia, and abounds in all the western states; but it grows most freely in the north-eastern section of the republic. In clearing the primitive forests, a few stocks are sometimes left standing. Insulated in this manner, it appears in all its majesty, towering to the height of eighty or one hundred feet, with a trunk four or five feet in diameter, regularly shaped, naked, and insensibly diminishing to the height of sixty or seventy feet, where it divides itself into two or three primary limbs. The limbs, not widely divergent near the base, approach and cross each other eight or ten feet higher, and diffuse on all sides long, flexible, pendulous branches, bending into regular arches, and floating lightly in the air. A singularity is observed in this tree, which has been witnessed in no other: two small limbs, four or five feet long, grow in a reversed position near the first ramification, and descend along the trunk. The uses of the elm are few and unimportant, and it deserves attention only as the most magnificent vegetable of the temperate zone.

The chesnut does not venture beyond the forty-fourth degree of latitude. It is found in New Hampshire, between the forty-third and forty-fourth degrees, but such is the severity of the winter, that it is less common than in Connecticut, New Jersey, and Pennsylvania. It is most multiplied in the mountainous districts of the Carolinas and of Georgia, and abounds on the Cumberland Mountains and in East Tennessee. The coolness of the summer and the mildness of the winter in these regions are favourable to the chesnut; the face of the country also is perfectly adapted to a tree which prefers the sides of mountains, or their immediate vicinity, where the soil in general is gravelly, though deep enough to produce its developement. The chesnut is little esteemed for fuel, and is not used in the cities of the United States: like the kindred species in Europe, it is filled with air, and snaps as it burns. The coal is excellent; and on some of the mountains of Pennsylvania, where the chesnut

abounds, the woods in the neighbourhood of the forges have been transformed into coppes, which are cut every sixteen years for the furnaces. This period is sufficient to renew them, as the summer is warmer in America than in Europe, the atmosphere more moist, and consequently vegetation more rapid.

In North America, as in Europe, the beech is among the tallest and most majestic trees of the forest. Two species, the white and the red, so called from the colour of their wood, are found in the United States. A deep, moist soil, and a cool atmosphere, are necessary to the utmost expansion of the white beech; and it is accordingly most multiplied in the middle and western states. Though it is common in New Jersey, Pennsylvania, Maryland, and throughout the country east of the mountains, it is insulated in the forests, instead of composing large masses, as in Genessee, Kentucky, and Tennessee. "I have found the finest beeches," says Michaux, "on the banks of the Ohio, between Gallipolis and Marietta, and have measured several stocks, growing near each other, which were eight, nine, and eleven feet in circumference, and more than one hundred feet high." In these forests, where the beeches vegetate in a deep and fertile soil, their roots sometimes extend to a great distance, even with the surface; and being entangled so as to cover the ground, they embarrass the steps of the traveller, and render the land peculiarly difficult to clear. The red beech is almost exclusively confined to the north-eastern parts of the United States. In the district of Maine, and in the states of New Hampshire and Vermont, it is so abundant as often to constitute extensive forests, the finest of which grow on fertile, level, or sloping lands, which are proper for the culture of corn. It bears a very close resemblance to the beech of Europe.

The pines and the spruces constitute a large and interesting class of American forest trees. The most valuable species is that which is known in England and the West Indies as the Georgia pitch-pine; and which, in the United States, is variously called yellow pine, pitch pine, broom pine, southern pine, red pine, and long-leaved pine, a name which, after Michaux, we adopt. Towards the north, the long-leaved pine makes its appearance near Norfolk in Virginia, where the pine-barrens begin. It seems to be especially assigned to dry sandy soils; and it is found, almost without interruption, in the lower part of the Carolinas, Georgia, and the Floridas, over a tract more than six hundred miles long, from north-east to south-west, and more than a hundred miles broad from the sea towards the mountains of the Carolinas and Georgia. Immediately beyond Raleigh, it holds almost exclusive possession of the soil, and is seen in company with other pines only on the edges of the swamps, enclosed in the barrens; even there not more than one stock in a hundred is of another species, and with this exception, the long-leaved pine forms the unbroken mass of woods which covers this extensive country. The mean stature of the long-leaved pine is sixty or seventy feet, with a uniform diameter of fifteen or sixteen inches for two-thirds of this

height. Some stocks, favoured by local circumstances, attain much larger dimensions, particularly in East Florida. The timber is very valuable, being stronger, more compact, and more durable, than that of all the other species of pine: it is besides fine grained, and susceptible of a high polish. Its uses are diversified, and its consumption great. But the value of the long-leaved pine does not reside exclusively in its wood: it supplies nearly all the resinous matter used in the United States in ship-building, with a large residue for exportation to the West Indies and Great Britain; and in this view its place can be supplied by no other species, those which afford the same product being dispersed through the woods, or collected in inaccessible places. In the northern states, the lands, which at the commencement of their settlement were covered with the pitch pine, were exhausted in twenty-five or thirty years, and for more than half a century have ceased to furnish tar. The pine-barrens are of vast extent, and are covered with trees of the finest growth, but they cannot all be rendered profitable, from the difficulty of communicating with the sea. Formerly tar was made in all the lower parts of the Carolinas and Georgia, and throughout the Floridas vestiges are everywhere seen of kilns that have served in the combustion of resinous wood; but at present, this branch of industry is confined to the lower districts of North Carolina, which furnish almost all the tar and turpentine exported from Wilmington and other ports. All the tar of the southern states is made from dead wood of the long-leaved pine, consisting of trees prostrated by time or by the fire kindled annually in the forests, of the summits of those which are felled for timber, and of limbs broken off by the ice which sometimes overloads the leaves. It is worthy of remark, that the branches of resinous trees consist almost wholly of wood of which the organization is even more perfect than in the body of the tree; the reverse is observed in trees with deciduous leaves. As soon as vegetation ceases in any part of the tree, its consistence speedily changes, the sap decays, and the heart, already impregnated with resinous juice, becomes surcharged to such a degree as to double its weight in a year; the accumulation is said to be much greater in four or five years. To procure the tar, a kiln is formed in a part of the forest abounding in dead wood; this is first collected, stripped of the sap, and cut into billets two or three feet long and about three inches thick. The next step is to prepare a place for piling it: for this purpose a circular mound is raised, slightly declining from the circumference to the centre, and surrounded with a shallow ditch. The diameter of the pile is proportioned to the quantity of wood which it is to receive: to obtain 200 barrels of tar, it should be eighteen or twenty feet wide. In the middle is a hole with a conduit leading to the ditch, in which is formed a receptacle for the resin as it flows out. Upon the surface of the mound, beaten hard and coated with clay, the wood is laid in radiations from the centre; and the pile, when finished, may be compared to a cone truncated at two-thirds of its height, and reversed, being twenty feet in diameter

below, twenty-five or thirty feet above, and ten or twelve feet high. It is then strewed over with pine leaves, covered with earth, and sustained at the sides with a slight cincture of wood. This covering is necessary in order that the fire kindled at the top may penetrate to the bottom with a slow and gradual combustion, because, if the whole mass was rapidly inflamed, the operation would fail and the labour in part be lost: in a word, nearly the same precautions are required in this process as are observed in Europe in making charcoal. A kiln which is to afford 100 or 130 barrels of tar is eight or nine days in burning. The tar flows off into the ditch.

The white pine is another valuable species. This tree is diffused, though not uniformly, over a vast extent of country. It is incapable of supporting intense cold, and still less extreme heat. It appears to be most abundant between the forty-third and forty-seventh degrees of latitude; farther south it is found in the valleys and on the declivities of the Alleghanies to their termination, but at a distance from the mountains on either side its growth is forbidden by the warmth of the climate. It is said with great probability to be numerous near the source of the Mississippi, which is in the same latitude with the district of Maine, the upper part of New Hampshire, the State of Vermont, and the commencement of the St. Lawrence, where it attains its greatest dimensions. "I measured two trunks," says Michaux, "felled for canoes, of which one was 154 feet long and 54 inches in diameter, and the other 142 feet long and 44 inches in diameter, at three feet from the ground. Mention is made in Belknap's History of New Hampshire, of a white pine felled near the river Merrimack, seven feet eight inches in diameter, and near Hollowell I saw a stump exceeding six feet: these enormous stocks had probably reached the greatest height attained by the species, which is about 180 feet, and I have been assured by persons worthy of belief that in a few instances they had felled individual trees of nearly this stature." It is probable that the authors who have stated its height at 260 feet, have been misled by incorrect reports; but this ancient and majestic inhabitant of the North American forests is still the loftiest and most valuable of their productions, and its summit is seen at an immense distance aspiring towards heaven, far above the heads of the surrounding trees. The trunk is simple for two-thirds or three-fourths of its height, and the limbs are short and verticillate, or disposed in stages one above another to the top of the tree, which is formed by three or four upright branches, seemingly detached and unsupported. In forests composed of the sugar maple, the beeches, or the oaks, where the soil is strong and proper for the culture of corn, as for example on the shores of Lake Champlain, the white pine is arrested at a lower height and diffused into a spacious summit; but it is still taller and more vigorous than the neighbouring trees. The wood of this species is employed in greater quantities and for far more diversified uses than that of any other American pine; yet it is not without essential defects: it has little strength, gives a feeble hold to

nails, and sometimes swells by the humidity of the atmosphere. These properties are compensated, however, by others which give it a decided superiority: it is soft, light, free from knots, and easily wrought; it is more durable, and less liable to split when exposed to the sun; it furnishes boards of a great width, and timber of large dimensions; in fine, it is still abundant and cheap. A very large proportion of the houses in the United States are built of it. The vast consumption of this tree for domestic use, and for exportation to the West Indies and to Europe, renders it necessary every year to penetrate farther into the country; and inroads are already made, in quest of this species only, upon forests which probably will not be cleared for cultivation in twenty-five or thirty years.

Of the several species of spruce, the two most considerable are the black spruce and the hemlock. They both appertain to the coldest regions of the new world. The regions in which the black spruce is the most abundant are often diversified with hills, and the finest forests are found in valleys where the soil is black, humid, deep, and covered with a thick bed of moss. Though crowded so as to leave an interval of only three, four or five feet, these stocks attain their fullest developement, which is seventy or eighty feet in height and from fifteen to twenty inches in diameter. The summit is a regular pyramid, and has a beautiful appearance on insulated trees; this agreeable form is owing to the spreading of the branches in a horizontal instead of a declining direction, like those of the true Norway pine, which is a more gloomy tree. The timber of the black spruce is distinguished by strength, lightness, and elasticity. Josselyn, in his *History of New England*, published in London, in 1672, informs us that it was considered at that period as furnishing the best yards and topmasts in the world. From the young branches of the tree, by boiling, is made the salutary liquor called spruce beer. The hemlock spruce abounds in the district of Maine, the state of Vermont, and the upper part of New Hampshire, where it forms three quarters of the evergreen woods, of which the remainder consists of the black spruce. Farther south it is less common, and in the middle and southern states is seen only on the Alleghanies, where it is often confined to the sides of torrents, and to the most humid and gloomy situations. In the country east and north of Massachusetts, which, without embracing Canada, is more than 750 miles long and 250 miles broad, the resinous trees are constantly found at the foot of the hills, and constitute nearly half of the unbroken forests which cover these regions. The hemlock spruce is always larger and taller than the black spruce. It attains the height of seventy or eighty feet, with a circumference of from six to nine feet, which is uniform for two-thirds of its length; but if the number and distance of the concentric circles afford a certain criterion of the longevity of trees and the rapidity of their vegetation, it must be nearly two centuries in acquiring these dimensions. In a favourable soil this tree has an elegant appearance while less than thirty feet high,

owing to the symmetrical arrangement of its branches, and to its tufted foliage; and at this age it is employed in landscape gardening. When arrived at its full growth, the large limbs are usually broken off four or five feet from the trunk, and the dried extremities are seen staring out through the little twigs which spring around them; in this mutilated state, by which it is easily recognized, it has a disagreeable aspect, and presents, while in full vigour, an image of decrepitude. This accident, which is attributed to the snow lodging upon the close, horizontal, tufted branches, never happens to the young trees, whose fibres are more flexible. The woods are also filled with dead stocks; but it is uncertain whether their destruction is occasioned by an insect which attaches itself of preference to the pines, or to some other cause. The dead moss-grown trees, which stand mouldering for twenty or thirty years, deform the forests of this part of the United States, and give them a gloomy and desolate appearance. Unhappily the properties of its wood are such as to give this species only a secondary importance, notwithstanding its abundant diffusion: it is the least valuable in this respect of all the large resinous trees of North America; but the regret which we should experience to see it occupying so extensively the place of more useful species, is forbidden by a property of its bark, inestimable to the country where it grows, that of being applicable in tanning.

Two species of cypress are indigenous to the United States. The banks of Indian river, a small stream that waters a part of Delaware, in latitude $38^{\circ} 50'$, may be assumed as its northern boundary. Hence, in proceeding southward, it becomes constantly more abundant in the swamps; but in Maryland and Virginia it is confined to the vicinity of the sea, where the winter is milder and the summer more intense. Beyond Norfolk its limits coincide exactly with those of the pine-barrens, and in the Carolinas and Georgia it occupies a great part of the swamps which border the rivers, after they have found their way out from among the mountains, and have entered the low lands. In the Mississippi valley it begins to be seen on the swampy and overflowed lands, near the mouth of the Ohio. It is, along with the swamp gum, the most common tree in the deep swamps from that point to the gulf of Mexico. It is in every respect a striking and singular tree. Under its deep shade arise a hundred curiously shaped knobs, called "cypress knees." They are regular, cone-shaped protuberances, of different heights and circumferences, not unlike tall and taper circular bee-hives. "We have often remarked," says Mr. Flint, "a very small cypress sprig, that had started from the apex of one of these cypress knees; and we believe, that it will ultimately be found that each one of these knees is the natural matrix of the tree." These noble trees rear their straight columns from a large, cone-shaped buttress, whose circumference at the ground is, perhaps, three times that of the regular shaft of the tree. This cone rises from six to ten feet, with a regular and sharp taper, and from the apex of the cone towers the perpendicular column, with little taper after it

has left the cone, from 60 to 80 feet clear shaft. The largest stocks are 120 feet in height, and from 25 to 40 feet in circumference above the conical base. Very near its top it begins to throw out multitudes of horizontal branches, which interlace with those of the adjoining trees, and, when bare of leaves, have an air of desolation and death more easily felt than described. In the season of vegetation, the leaves are short, fine, and of a verdure so deep as almost to seem brown, giving an indescribable air of funereal solemnity to this singular tree. A cypress forest, when viewed from the adjacent hills, with its numberless interlaced arms covered with this dark brown foliage, has the aspect of a scaffolding of verdure in the air. It grows in deep and sickly swamps, the haunts of fever, mosquitos, moccasin snakes, alligators, and all loathsome and ferocious animals, that congregate far from the abodes of man, and seem to make common cause with nature against him. The cypress loves the deepest, most gloomy, inaccessible, and inundated swamps; and, south of 33 degrees, is generally found covered with the sable festoons of the long moss, hanging, like a shroud of mourning wreaths, almost to the ground. It seems to flourish best where water covers its roots for half the year. When it rises from eight or ten feet water of the overflow of rivers, the apex of its buttress is just on a level with the surface of the water, and it is then, in many places, that they cut it. The negroes surround the tree in boats, and thus get at the trunk above the huge and hard buttress, and fell it with comparative ease. They cut off the straight shaft, as it suits their purpose, and float it to a raft, or the nearest high grounds. Unpromising as are the places and the circumstances of its growth, no tree of the country where it is found is so extensively useful. It is free from knots, is easily wrought, and makes excellent planks, shingles, and timber of all sorts. It is very durable, and incomparably the most valuable tree in the southern country. It is a fortunate circumstance, that it inhabits the most gloomy and inaccessible regions, which will not come into cultivation for ages, so that it will, of course, have a better chance of escaping the fate of the most useful timber on the valuable uplands. The improvident axe soon renders timber difficult to be procured, even in a country in the centre of forests. All the cypress forests that are easily accessible, on the lower Mississippi and its tributaries, have already been stripped of their timber by the lumberers, who have floated to New Orleans millions of feet of this timber from other lands of the United States, and who have already created a scarcity of this species on the margin of the river; there are, however, in the vast swamps of the Mississippi, Arkansas, Red river, and Florida, inexhaustible supplies of cypress still remaining.

In addition to these we may notice the acacia and the poplar. Several varieties of the acacia, or locust tree, are found in the United States, from whence this valuable tree was early imported into Europe. It is most multiplied in the south-west, and abounds in all the valleys between the chains of the Alleghany mountains, particularly

in Limestone valley. It is also common in all the western states, and in the territory comprised between the Ohio, the Illinois, the Lakes, and the Mississippi. It is not found in the states east of the river Delaware, nor does it grow spontaneously in the maritime parts of the middle and southern states, to the distance of from fifty to one hundred miles from the sea; all the stocks that are seen in these parts having been planted at different periods. Though the locust is multiplied east of the mountains in the upper part of Virginia and of the two Carolinas, it forms a much smaller proportion of the forests than the oaks and walnuts; and it is nowhere found occupying exclusively tracts even of a few acres. For this reason it is the only tree, besides the black walnut, that is left standing in the clearing of new lands: hence these two species, which are not sufficiently multiplied to supply the demand for their wood, are frequently seen growing in the midst of cultivated fields. The greatest consumption of locust wood is for posts, which are employed by preference for the enclosing of court-yards, gardens, and farms, in the districts where the tree abounds, and in the circumjacent country. In naval architecture, the shipwrights use as much of it as they can procure. It combines great durability with strength and lightness. The sweet locust belongs peculiarly to the country west of the Allegany mountains, and it is found scarcely in any part of the Atlantic states, except in Limestone valley, and its branches, which lie between the first and second ranges of the Alleganies.

Of the poplar several species exist in the United States. Of this family is the tulip tree, or yellow poplar, a splendid, lofty, and useful tree. The cotton wood belongs to the same genus. It is probably more abundant on the lower courses of the Ohio, on the whole course of the Mississippi, Missouri, St. Francis, White river, Arkansas, and Red river, than any other tree. It is a noble and lofty forest tree, and sometimes vies with the sycamore itself for predominance in size and grandeur. It is of singular beauty when its foliage is but partly unfolded in the spring. These trees, especially in the valley of Red river, have been seen twelve feet in diameter; and there are single trees, that will make a thousand rails. When they are cut in the winter, the moment the axe penetrates the centre of the tree, there gushes out a stream of water or sap, and a single tree will discharge gallons. On the sand bars and islands of the rivers, wherever the alluvial earth begins to be deposited, there springs up a growth of cotton wood, the young trees standing so thick as to render it difficult for a bird to fly among them, and having, to a person passing at a little distance on the river, a singular appearance of regularity, as though they had been put out to ornament a pleasure-ground. The popular name "cotton wood" is derived from the circumstance, that soon after its foliage is unfolded, it flowers, and when the flowers fall, it scatters on the ground a downy matter, in feeling and appearance exactly resembling short ginned cotton.

Among the ornamental trees of the American forest we have been led to assign the magnolias a conspicuous place. It is undoubtedly a beautiful tree; but seems to have been so extravagantly described by American writers, as to occasion disappointment when first beheld by a stranger in its native localities. There are six or seven varieties among the laurels of the magnolia tribe, some of which have smaller flowers than those of the grandiflora, but much more delicate, and more agreeably fragrant. A beautiful evergreen of this class is covered in autumn with berries of an intense blackness, and has been remarked in great numbers about St. Francisville. The holly is a well-known and beautiful tree of this class; but the handsomest of the family is the laurel almond. It is not a large tree. Its leaves strongly resemble those of the peach; it preserves a most pleasing green through the winter, and its flowers yield a delicious perfume. It grows in families of ten or fifteen trees in a cluster; and planters of taste in the valley of Red river, where it is common, often select the place of their dwelling in the midst of them.

The catalpa, or catawba, is an ornamental tree, abounding in West Florida and the southern part of the Mississippi valley. It is beautiful from the great size, peculiar shape, and deep green of its foliage. When in blossom, its rounded top is a tuft of flowers, of great beauty and unequalled fragrance. One tree in full flower fills the atmosphere, for a considerable circumference round it, with its delicious odours. For the gracefulness of its form, for the grandeur of its foliage, and the rich and ambrosial fragrance of its flowers, as well as for the length and various forms of its knife-shaped, pendent seed capsules, two feet in length, it is considered by some writers unequalled among ornamental trees.

The bow-wood is a striking and beautiful tree, found on the upper courses of the Washita, the middle regions of Arkansas, and occasionally on the northern limits of Louisiana. It inhabits a very limited region, and is supposed not to be native elsewhere. Taken altogether, it is a tree of extraordinary beauty. It bears a large fruit of most inviting appearance, and resembling a very large orange; but tempting as it is in aspect, it is the apple of Sodom to the taste. Many people consider it the most splendid of all forest trees. It receives its name from the circumstance, that all the south-western savages use it for bows. The china tree is much cultivated in the southern regions of the Mississippi valley for ornamental shade. The verdure is the most brilliant and deep in nature. In the flowering season, the top is one tuft of blossoms, in colour and fragrance resembling the lilac, except that the tufts are larger, and it holds in flower for a long time. These trees, planted out in a village, in a few years completely embower it; and, from the intenseness of their verdure, they impart a delightful freshness to the landscape in that sultry climate. After the leaves have fallen in autumn, the tree is still covered with a profusion of reddish berries, of the size of haws, that give it the appearance at a little distance of remaining in

flower. Robins migrate to this region in the latter part of winter, settle on these trees in great numbers, and feed on the berries, which possess an intoxicating or narcotic quality, so that the robins, sitting on the trees in a state of stupefaction, may be killed with a stick. The dog-wood and the red-bud are of an intermediate size, between shrubs and trees. The former has a beautiful heart-shaped and crimped leaf, and an umbrella-shaped top. It covers itself in spring with a profusion of brilliant white flowers, and in autumn with berries of a fine scarlet. The red-bud is the first shrub that is seen in blossom on the Ohio. The shrub is then a complete surface of blossoms resembling those of the peach tree, and a stranger would take it, at that time, to be that tree. The shrubs are dispersed everywhere in the woods; and in descending the Ohio early in the spring, these masses of brilliant flowers contrast delightfully with the general brown of the forest: the first time that the voyager descends this river, the red-bud imparts a charm to the landscape that he will never forget. These two are at once the most common and the most beautiful shrubs in the Mississippi valley. The dog-wood, especially, is found everywhere from Pittsburg to the gulf of Mexico; and, seen through the forests in blossom, is far more conspicuous for its flowers than the magnolia. The rhododendron or dwarf rose bay, and the kalmia or mountain laurel, are plants with which our own shrubberies have now rendered us familiar. The west end of Long Island, and the river Hudson below the Highlands, may be considered as the limit far beyond which the rhododendron ceases to be found in the forests of the United States. It is abundant in the middle states, and in the upper parts, particularly in the mountainous tracts of the southern section. In the low lands it is almost exclusively seen on the borders of creeks and rivers, and is observed to be more multiplied in approaching the Alleghanies; till, in the midst of these ranges, especially in Virginia, it becomes so abundant on the sides of the torrents as to form impenetrable thickets, in which the bear finds a secure retreat from the pursuit of the dogs and of the hunters.

The kalmia abounds in New Jersey, and covers Wheelock Hill, nearly opposite to the city of New York. It grows also near the Schuylkill, in the immediate neighbourhood of Philadelphia. It is found along the steep banks of all the rivers which rise in the Alleghany mountains; but it is observed to become less common in following these streams from their source, towards the Ohio and Mississippi on one side, and towards the ocean on the other. In the southern states it disappears entirely when the rivers enter the low country, where the pine-barrens commence. In North Carolina, on the loftiest part of the Alleghanies, it occupies tracts of more than 100 acres, and forms upon the summit, and for a third of the distance down the sides, thickets eighteen or twenty feet in height, which are rendered nearly impenetrable by the crooked and unyielding trunks, crossed and locked with each other. As the shrubs which compose these copses are of an uniform height, and richly laden with

evergreen foliage, they present, at a distance, the appearance of verdant meadows surrounded by tall trees. The snowberry is an ornamental shrub, inhabiting the banks of the upper Missouri. It bears at the same time flowers and fruit, which continue successively expanding and ripening during the whole summer; and when in the autumn the large bunches of ivory or wax-like berries are matured, the appearance is stated to be extremely beautiful. Of the gaudy genus *erythrina*, or coral tree, the United States lay claim to one species. It is a herbaceous shrub from two to three feet high. It is a native of the open bushy forests of Carolina, Georgia, and Florida; and its brilliant red blossom makes a superb appearance at the time of florescence.

The southern regions of the United States, as far north as Cape Hatteras, present to us one species of palm. It is the palmetto, or cabbage tree. A trunk from forty to fifty feet in height, of an uniform diameter, and crowned with a regular and tufted summit, gives the cabbage tree a beautiful and majestic appearance. The base of the undisclosed bundle of leaves is white, compact, and tender; it is eaten with oil and vinegar, and resembles the artichoke and the cabbage in taste, whence is derived the name of cabbage tree: but to destroy a vegetable which has been a century in growing, to obtain three or four ounces of a substance neither richly nutritious nor peculiarly agreeable to the palate, seems to be nothing short of prodigality. The cabbage tree bears long clusters of small greenish flowers, which are succeeded by a black inesculent fruit, about the size of a pea. In the southern states the wood of this tree, though extremely porous, is preferred to every other for wharfs: its superiority consists in being secure from injury by sea-worms, which, during the summer, commit great ravages in structures accessible to their attacks; but when exposed to be alternately wet and dry by the flowing and ebbing of the tide, it decays as speedily as other wood. The use of the cabbage tree is rapidly diminishing its numbers, and probably the period is not distant when it will cease to exist within the boundaries of the United States. In the war of independence, the cabbage tree was found eminently proper for constructing forts, as, on the passage of the ball, it closes without splitting.

Among wild fruit-bearing shrubs the preeminence seems to be due to the papaw, or Indian fig. It is not uncommon in the bottoms which stretch along the rivers of the middle states; but it is most abundant in the rich valleys intersected by the western waters, where, at intervals, it forms thickets exclusively occupying several acres. In Kentucky, and in the western part of Tennessee, it is sometimes seen also in forests where the soil is luxuriantly fertile, of which its presence is an infallible proof; in these forests it attains the height of thirty feet, and the diameter of six or eight inches, though it generally stops short of half this elevation. The fruit closely resembles a cucumber, having, however, a more smooth and regular appearance;

when ripe, it is of a rich yellow and there are generally from two to five in a cluster. The pulp resembles egg custard in consistence and appearance; it has the same creamy feeling in the mouth, and unites the taste of eggs, cream, sugar, and spice: in short it is a natural custard, and is too luscious for the relish of most people. The fruit is nutritious, and a great resource to the savages. So many tastes are unexpectedly and whimsically compounded in it, that, it is said, a person of the most hypochondriac temperament relaxes to a smile when he tastes papaw for the first time.

Three species of cherry are found in the United States, one of which occurs both in the Atlantic and the western states, as a tall timber tree. None of them produce eatable fruit; but the red cherry bears the greatest analogy to the cultivated cherry of Europe, and is the most likely to allow of grafting.

The persimon varies surprisingly in size in different soils and climates. In the vicinity of New York it is not more than half as large as in the more southern states, where, in favourable situations, it is sometimes sixty feet in height and eighteen or twenty inches in diameter. The ripe fruit is about as large as the thumb, of a reddish complexion, round, fleshy, and furnished with six or eight semi-oval stones; but it is not eatable till it has felt the first frost, by which the skin is shrivelled, and the pulp, which before was hard and extremely harsh to the taste, is softened and rendered palatable. The fruit is so abundant, that in the southern states a tree often yields several bushels; and even in New Jersey are seen the branches of stocks, not more than seven or eight feet in height, bent to the ground by their burthen. In the south the fruit adheres to the branches long after the shedding of the leaf; and when it falls, it is eagerly devoured by wild and domestic animals. In Virginia, the Carolinas, and the western states, it is sometimes gathered up, pounded with bran, and formed into cakes, which are dried in the oven, and kept in order to make beer; for which purpose they are dissolved in warm water, with the addition of hops and leaven. It was long since found that brandy might be made from this fruit, by distilling the water, previously fermented, in which they had been bruised. This liquor is said to become good as it acquires age: but it will be impossible to derive profit from the persimon in these modes, and in the country where it is most abundant a few farmers only employ its fruit occasionally for their households. The apple and the peach tree are far more advantageous, as their growth is more rapid and their produce more considerable.

The Chickasaw plum is common from 34° north latitude to the gulf of Mexico. It is found in the greatest abundance, and ripens early in June. Prairie plums are most abundant in Illinois and Missouri on the hazel prairies. They are of various sizes and flavours; their general colour is reddish and their flavour tart, but some of them are large and delicious. In some places they are found in inconceivable quantities,

the surface of acres being red with them; and two bushels have been gathered from one tree. The yellow Osage plum of this class, when the better kinds are cultivated, is delicious. In the middle regions of the central valley, on prairies of a particular description, there are great tracts covered with an impenetrable mat of crab apple shrubs. The form, colour, and fragrance of the blossoms are precisely those of the cultivated apple tree, and when the southern breeze comes over a large tract of these shrubs in full blossom, it is charged with a concentrated fragrance almost too strong to be grateful. They are useful as stocks in which the cultivated apple and pear tree may be engrafted. Their fruit, when properly prepared, makes fine cider, and the apple is much used as a preserve. The mulberry is of rare occurrence in the Atlantic states, but is found in every part of the valley of the Mississippi, and in some places constitutes no inconsiderable portion of the timber. Its wood is very valuable, and scarcely less durable than that of the locust. The American species is not the black mulberry of Europe, but the red mulberry. The white mulberry, on which the silkworm feeds, has been asserted to be indigenous to the United States; but the stocks of this kind which may now be seen there, are stated by Michaux to have been planted "a century ago, when attempts were made to introduce the raising of silkworms:" as the soil and climate of the United States, however, are well adapted to the white mulberry, there is no reason why that branch of industry should not be cultivated successfully, though the experiments hitherto made have had no very promising result.

The common grape vine is diffused through all the climates. Nothing is more common than, in the richer lands, to see vines, often of a prodigious size, perpendicularly attached at the top to branches sixty or eighty feet from the ground, and at a great lateral distance from the trunk of the tree. It is common to puzzle a man first brought into these woods, by putting him to account for the manner in which a vine, perhaps nearly of the size of the human body, has been able to rear itself to such a height: there can be, however, no doubt that the vine in this case is coeval with the tree; that the tree, as it grew, reared the vine; and that the vine receded from the trunk with the projection of the lateral branch, until, in the lapse of time, this singular appearance is presented. In many places, half the trees in a bottom are covered with these vines. In the deep forests, on the hills, in the barrens, in the hazel prairies, and in the pine woods, every form and size of the grape vine presents itself. Of the plants of the winter grape, which so generally cling to the trees in the alluvial forests, probably not one in fifty bears any fruit at all. The fruit, when produced, is a small circular berry, not unlike the wild black cherry. It is austere, sour and unpleasant, until it has been mellowed by the frosts of winter; but it is said, when fermented by those who have experience in the practice, to make a tolerable wine. The summer grape is found on the rolling barrens and the hazel prairies. It is more than twice the

size of the winter grape, is ripe in the first month in autumn, and, when matured under the full influence of the sun, is a pleasant fruit. It grows in the greatest abundance, but is too dry a grape to be pressed for wine. The muscadine grape is seldom seen north of 34 degrees. More southerly it becomes abundant, and is found in the deep alluvial forests, clinging to the tall trees. The fruit grows in more scanty clusters than that of other grapes. Like other fruits, they fall as they ripen, and furnish a rich treat to bears and other animals that feed on them; they are of the size of a plum, of a fine purple black, with a thick tough skin, tasting not unlike the rind of an orange; the pulp is deliciously sweet, but is reputed unwholesome. The pine woods grape has a slender, blueish purple vine, that runs on the ground among the grass. It ripens in the month of June; is large, cone-shaped, transparent, with four seeds, reddish purple, and is a fine fruit for eating. On the sandy plains at the sources of Arkansas and Red river, the gentlemen of Long's expedition concur with hunters and travellers in relating, that there are found large tracts of sandy plain, from which grows a grape, probably of this species. They have stated that the clusters are large and delicious, and that the sand, drifting about them, covers up the redundant vegetation, performing the operation of pruning on the vine: the sun, too, strongly reflected from a surface of sand, must have a powerful influence to mature the fruit. It is possible, that some part of the admiration which has been felt, in seeing such sterile tracts covered with these abundant and rich clusters, and the high zest with which they were devoured, may have been owing to the surprise of finding such a phenomenon in contrast with a white and moving sand, and eating the fruit under associations created by hunger and thirst. The universal diffusion of such numbers and varieties of the vine, would seem to indicate this valley to possess a natural aptitude for the cultivation of the vine.

The gooseberry, in all its natural varieties, is indigenous to the United States. In the middle regions of the Mississippi valley it grows to a great height and size, and covers itself with fruit. It makes a high, compact, and impervious hedge. Immense tracts of the prairies are covered with the hazel, and the nuts are fine and abundant: the bushes are often surmounted with wreaths of the common hop. The whortleberry abounds in the Atlantic states, but is less common in the interior. The red raspberry is also indigenous, and grows of a fine size and flavour from the middle to the northern regions of the great valley: one species of it, the rose-flowering raspberry, has a large and ornamental blossom. Blackberries, high and creeping, are found in prodigious abundance, and the prairies in many places, in the season, are red with fine strawberries. The cranberry is a native fruit of the North American continent. It grows in morasses and swamps of rich boggy bottoms, from Labrador to Carolina. When found it is in great abundance, and gives to such localities the name of cranberry swamps. Extensive cranberry swamps are met with in New Jersey.

The cane grows on the lower courses of the Mississippi, Arkansas, and Red River, from fifteen to thirty feet in height; some, in these rich soils, would almost vie in size with the bamboo. The leaves are of a beautiful green, long, narrow, and dagger-shaped, not unlike those of the Egyptian millet. It grows in equidistant joints, perfectly straight, and in almost a compact mass, so that the smallest sparrow would find it difficult to fly among it. Looking at its ten thousand stems almost contiguous to each other, and at the impervious roof of verdure which it forms at its top, it has the aspect of a solid layer of vegetation. A man could not advance at the rate of three miles in a day through a thick cane-brake. It is the chosen resort of bears and panthers, (cougars) which break it down, and make their way into it as a retreat from man. It indicates a dry soil, above the inundation, and of the richest character; and the ground is never in better preparation for maize, than after this prodigious mass of vegetation is first cut down and burned. When the cane has been cut, and is so dried that it will burn, it is an amusement of high holiday to the negroes to set fire to it. The rarefied air in the hollow compartments of the canes bursts them, with a report not much inferior to a discharge of musketry; and the burning of the whole brake makes the noise of a conflicting army, in which thousands of muskets are continually discharging. This beautiful vegetable is generally asserted to have a life of five years, at the end of which period, if it has grown undisturbed, it produces an abundant crop of seed, with heads very like those of the broom corn; the seeds are farinaceous, and are said to be not much inferior to wheat, for which the Indians, and occasionally the first settlers, have substituted it. No prospect so strikingly shows the exuberant prodigality of nature as a thick cane-brake; nothing affords such a rich and perennial range for cattle, sheep, and horses; and the butter that is made from the cane pastures of this region is of the finest kind. The seed easily vegetates in any rich soil. It rises from the ground like the richest asparagus, with a large succulent stem, and it grows six feet high before it loses its succulency and tenderness. No vegetable furnishes a fodder so rich or abundant; and it has been recommended to make trial of the annual cultivation of the cane in regions where it cannot survive the winter. A species of flax was found by Lewis and Clark growing in the valleys of the Chippe- wayan Mountains, and on the banks of the Missouri. The bark possesses the same kind of tough fibres as the common flax, and the Indians are in the habit of making lint and wadding for their guns from it.

Many parts of the United States are tangled with annual and perennial creepers of various kinds, foliage, and forms. The trumpet flower, (*bignonia*), is a creeper, beautiful for its foliage and flowers. It has a vine of a greyish white colour, and long and delicate spike-shaped leaves in alternate sets. It climbs the largest trees in preference to others, mounts to their summits, and displays a profusion of large, trumpet-

shaped flowers, of a flame colour. Planted near a house, in two or three seasons a single vine will cover a roof, throwing its fibrous and parasitic roots so strongly under the shingles, as to detach them from the rafters. Various species of ivy abound, especially in the rich alluvions, where thousands of the forest trees, and often huge dead trunks, are wreathed with it. The supplejack is remarkable for attaching itself so strongly to the shrub it entwines, as to cause those curious spiral curves and inner flattenings which give value to its cane.

The gramineous vegetation of the United States is extremely luxuriant, and species of grass are found adapted to every locality, except the sands of the Chippewayan desert. The aspect of the eastern, however, differs in this respect from that of the western states. The northern Atlantic country covers itself naturally with a fine sward, but the friable soil of the western lands is the region of coarse grass, and tall flowering plants with gaudy blossoms. The numbers, forms, and gigantic height of these weeds and plants are not among the least surprising objects to an observer of nature. We have already noticed the kind of sedge which occupies the salt marshes of the Atlantic coast, and the various changes in it as the uplands are approached. In the boggy meadows of New England, and elsewhere in low, wet, and miry swamps, on parts elevated above the water, grows the swamp grass; it is of the brightest verdure, remaining green through the frosts of winter, and its sharp edges, when drawn rapidly through the fingers, cut them. In the middle regions of the Mississippi valley, cattle are driven to these swamps, to subsist through the winter. The universal indigenous grass of this country, in all its climates and extent, covering the millions of acres of the prairies, is what is commonly called the prairie grass, (*poa pratensis*.) It grows equally in the forests and barrens, wherever there is an interval sufficiently unshaded to admit its growth. It is tall, coarse, and full of seeds at the top; and when ripe, is rather too wiry for fodder. It is cut for that purpose in September. If it were cut earlier, and before it had lost its succulence and tenderness, it would probably be excellent feed. The prairies yield inexhaustible quantities, and the towns and villages in the prairie regions are copiously supplied with it. When young, and before it has thrown up its stem, it resembles wheat in appearance. The speargrass of New England yields a fine, soft sward. In the western country it is observed growing about deserted houses and Indian villages, and it is said in many places to be displacing the prairie grass, on the upper prairies of Illinois; like the robin-redbreast, it seems to be attached to the abodes of civilized man. The fowl meadow grass of New England is also valuable; but it does not abound, if it exists, in the western states, to the wet prairies of which it would be an important acquisition.

A useful herbaceous plant is the rush, (*equisetum hyemale*,) which grows in bottoms, on grounds of an intermediate elevation between those of the cane-brake and the deeply-flooded lands. This grass is sometimes a perfect mat, as high as the

shoulders. Nothing can exceed the brilliance of its verdure, especially when seen in winter in contrast with the universal brown. Where it grows high and thick, it is difficult to make way through it; and it has a disagreeable kind of rustling which produces the sensation that is called setting the teeth on edge. In the northern regions its tubular stem is apt to fill with compact icicles. It is the favourite range of horses and cattle, and is devoured by them with more greediness than even cane; but if swallowed when filled with ice, it produces a chill in the stomach of the cattle that is apt to prove fatal. To the boats that descend the Mississippi, the rush is an invaluable resource, the cattle and horses, after being pent up in these floating barns for many days in succession, being turned loose, and finding holiday pasture in this rich range. The pea vine is a small fibrous vine, that covers the soil in the richer forest lands; it receives its name from the resemblance of its leaves and flowers to those of the cultivated pea. It is a rich and almost universal forest range for cattle, but when once eaten down, it is not apt to renew itself; of course, it disappears in the vicinity of compact population.

A plant of great importance is the wild rice, (*zizania aquatica*.) It is found in the greatest abundance on the marshy margins of the northern lakes, and in the shallow waters on the upper courses of the Mississippi. It grows in these regions on a vast extent of country. It is here that the millions of the migrating water-fowls fatten, before they take their autumnal migration to the south; it is here, too, that the northern savages, and the Canadian traders and hunters, find their annual supplies of grain, a resource, without which they could hardly subsist. It is a tall, tubular, reedy water-plant, and very much resembles the cane grass of the swamps and marshes on the gulf of Mexico. It springs up from waters of six or seven feet in depth, where the bottom is soft and muddy, and rises nearly as high above the water. Its leaves and spikes, though much larger, resemble those of oats, from which the French give it its name. When it is intended to be preserved for grain, the spikes are bound together, to secure them from the ravages of birds and water-fowls, which prey upon them in immense numbers, and it thus has a chance to ripen; at the season for gathering it, canoes are rowed among the grain, a blanket is spread upon them, and the grain is beaten on to the blankets. It is perhaps of all the *cereal*ia, except maize, the most prolific. It seems also not peculiar to any climate, since it arrives at perfection equally at the sources and at the mouths of the Mississippi.

A perennial plant of the palm kind, and called also palmetto, appears about latitude 33°. It throws up from a large root, so tough as to be cut with difficulty by an axe, and very hard to be eradicated from the soil, large fan-shaped leaves, of the most striking and vivid verdure, and ribbed with wonderful exactness. It indicates a deep swampy soil, and grows to six feet in height. The infallible index of swamp and of southern climate, and having no resemblance to any plant seen

at the north, its foreign aspect, and its deep green, unchanged by winter, when first seen by the traveller from the north, is apt to produce considerable surprise, and strongly reminds him that he is a stranger, and in a new climate. It is used by the savages and the poorer creoles as thatch for their cabins; and from the tender shoots of the season, properly prepared, a very useful kind of summer hats, called palmetto hats, is manufactured. The May apple is a beautiful plant that completely covers the ground, where it grows with the freshest and most cheering verdure of spring. It has a handsome white blossom, and bears a fruit of the appearance and taste of a lemon, and its root is a powerful cathartic. Strammony is a poisonous weed, perniciously common through the western country. On the richest bottoms it grows fifteen feet in height, and of such a size and compactness as to prevent cattle from running among it. It has splendid flowers, and a great quantity of oily seeds; its smell is nauseous, and it is a common and annoying tenant of the villages on the alluvial margin of rivers: in some places, no inconsiderable part of the labour on the highways is to cut up this weed from the roads and outlets of the villages. Its popular name is jimson, probably a corruption of Jamestown, the place whence it was said to have been brought. It is used as medicine in spasmodic asthma. The next most common and annoying weed along the roads, especially in Louisiana, is a very tall plant resembling *cassia marilandica*; it renders the paths, and the banks of the streams in that region almost impassable in autumn, until the cattle have trodden it down. Cockle burrs in the same situations are excessively annoying weeds, filling the outlets and uncultivated places to such a degree, that the burrs adhere to the clothes of passengers, and mat the wool of sheep running among it with an inextricable tangle. The common nettle is everywhere annoying to the summer traveller in the woods. One of the most singular of the forest productions is the wax plant, every part of which, except the root and the anthers, is snow white, and has the appearance of the most delicate wax preparation. It grows in rich shady woods, and is greatly prized because of its delicate appearance. The beautiful blue flower with golden anthers, the Virginian spiderwort, now common in our gardens, is a native of the sandy margins of rivers and creeks in the United States. It is disputed whether tobacco, long naturalized and now extensively cultivated in North America, is indigenous to the country or not.

The common kinds of aquatic plants are found in the still and shallow waters of the swamps; particularly a beautiful kind of water lily, highly fragrant, but not identical with the New England pond lily. This is the *nymphaea odorata*, closely resembling the European water lily. Another of this genus, *nymphaea nelumbo*, is much larger, and, for size and beauty, is said to be unrivalled. Dr. Barton,^e who

^e Barton's Flora of North America.

calls it *cyamus luteus*, considers it to be the same as the sacred bean of India, and mentions it as abundant near Philadelphia, but rare otherwise, and refusing propagation. Mr. Flint found it in the southern states, and speaks of it as attaining great splendour on the lakes and stagnant waters of the Arkansas. It rises from a root resembling the large stump of a cabbage, and from depths in the water of from two or three to ten feet; it has an elliptical, smooth, and verdant leaf, some of the largest of them being of the size of a parasol. The muddy creeks and stagnant waters are often so covered with these leaves, that the sandpiper walks on the surface of them without dipping her feet in the water. She has her home in still lakes, in the centre of cypress swamps; musquitos swarm above; obscene fowls wheel their flight over them; alligators swim among their roots, and moccasin snakes bask on their leaves: in such lonely and repulsive situations, under such circumstances, and for such spectators, is arrayed, what is represented as the most brilliant display of flowers in the creation. In the capsule are embedded from four to six acorn-shaped seeds, which the Indians roast and eat when green; or they are dried and eaten as nuts, or reduced to meal, and made into a kind of bread. A singular kind of aquatic vegetation, which has given rise to the fiction of floating islands of vegetation on the waters, is seen to cover a great extent of shallow lakes and muddy streams. It appears, indeed, to float on the water, and great masses of it, no doubt, often are detached and floating, as though there were no roots affixed to the soil at the bottom; but its twiny stem, of many yards in length, is ordinarily bound to the bottom by a thousand fibrous roots. It has a small beautiful elliptical leaf, and a diminutive but delicate white flower. Under them fishes dart, alligators gambol, and in the proper season, multitudes of water-fowl are seen pattering their bills among these leaves. This plant has been designated by the name *pistia stratiotes*. One species of the *orontium*, or golden club, is indigenous to the United States. It grows on the marshy borders of rivers and creeks, or on the margins of ditches and ponds, so far as the tide penetrates, but no further. The only other known species of this plant is a native of Japan.

Besides the mistletoe, which is abundant, a singular parasitic plant of the southern states, is the long moss. It hangs down in festoons, like the stems of the weeping willow. It attaches itself of choice to the cypress, and gives its next preference to the acacia. Its pendent wreaths often conceal the body of the tree to such an extent, that, when bare of foliage, little is seen but a mass of moss. These wreaths, waving in the wind, attach themselves to the branches of other trees, and thus sometimes form curtains of moss which darken the leafless forest of winter. It is in colour of a darkish grey, and the wreaths are many yards in length. It has a small, trumpet-shaped flower, of peach-blossom colour, and seeds still finer than those of tobacco. Associated as it naturally is with marshy and low alluvions,

where it grows in the greatest profusion, and with the idea of sickness, this dark drapery of the forest has an aspect of inexpressible gloom. When fresh, it is a tolerable fodder for horses and cattle, and the deer feed upon it in winter. It soon dies on dead trees. Prepared something after the manner of water-rotted hemp, the bark is decomposed and the fibre remains, fine, black, strong, elastic, and apparently incorruptible; in this state, in appearance and elasticity it resembles horse hair, and like that, is used for mattresses. Most of the people in the lower country sleep on these mattresses, and they are becoming an article of commerce in the upper country. The creoles make various articles of harness, as horse-collars, and saddle-stuffing, of this material; for which purposes also, considerable quantities are exported to the upholsterers and carriage-makers in the Atlantic country.

Of course it will be understood that in this chapter we have noticed only the more conspicuous and considerable of the vegetable productions of the United States, such as they were before those additions were made which have already come under our observation, and will hereafter be further described. A mere catalogue of the whole would occupy all the space we can allot to the subject, and would afford our readers neither gratification nor instruction. Scientific works may be referred to for more extended information.

CHAPTER IV.

ZOOLOGY.

THE living tribes occurring in the transatlantic republic open a wide and interesting field of observation. The ornithological department is particularly rich and striking; and the reptiles are numerous and powerful; and on the whole the zoology of the United States may be said to be still more peculiar than either their mineralogy or their botany. We shall notice, in as copious a manner as our limits will allow, the principal objects of interest in the respective animal tribes.

The following general view of the mammiferous animals inhabiting the North American continent, is given by Dr. Harman.^a The number of species now ascertained is 147, in which, however, this author, like some other American and European writers, includes *man*; but, as it does not correspond with the purpose of this chapter to do so, we shall reckon the species at 146. Of these 28 are cetacea, and 118 are quadrupeds. Among the quadrupeds it is also to be noticed that Dr. Harman reckons eleven species of which no living trace whatever is found, either in North America or in any other part of the world, and which he introduces only by virtue of their fossil remains; but if we allow a sufficient reason to exist for placing such animals in a scientific arrangement, they cannot, at all events, be regarded as forming a part of the present zoology of the North American continent. The number of living species of quadrupeds is, therefore, 107. The comparative numbers of the several orders are stated to be as follows:—

Primates, (not including man)	0
Carnivora, (in which Dr. Harman includes the bat)	60
Glires	37
Edentata	6
Pachydermata	2
Ruminantia	13
Cetacea	28

^a Fauna Americana.

It thus appears that the monkey tribe is wholly excluded from the territory under review, together with the kindred animals constituting the order primates. In this order, however, the bat has been commonly reckoned, and we think with more propriety than where Dr. Harman has placed it. Several species of this animal are found in the United States, but exhibiting no remarkable features. The following account of their manner of hybernation in a cave is given by Professor Green. "They did not appear to be much disturbed by the light of the torches carried by our party, but, upon being touched with sticks, they instantly recovered animation and activity, and flew into the dark passages of the cavern. As the cave was for the most part not more than six or seven feet in height, they could very easily be removed from the places to which they were suspended; and some of the party who were behind me disturbed some hundreds of them at once, when they swept by me in swarms to more remote, darker, and safer places of retreat. In flying through the caves they made little or no noise; sometimes, upon being disturbed in one place, they flew but a few yards, and then instantly settled in another, in a state of torpor apparently as profound as before. These bats, in hybernating, suspended themselves by the hinder claws, from the roof or upper part of the cave: in no instance did I observe one along the sides. They were not promiscuously scattered, but were collected into groups or clusters of some hundreds, all in close contact. On holding a candle within a few inches of one of these groups, they were not in the least troubled by it; their eyes continued closed, and I could perceive no signs of respiration. On opening the stomach of one of these bats, it was found entirely empty."

The strictly carnivorous animals, or beasts of prey, form, as might be expected in so extensive and diversified a tract of uncultivated country, a large class of tenants of the American wilds. Here, however, we find neither the lion, nor the tiger, the hyæna, nor the leopard, nor any of those creatures, with which, as beasts of prey, we are most familiar, and which make so conspicuous a figure in African and Asiatic regions. The largest animal of this kind in the United States is the cougar. This is commonly but improperly called the panther, and has occasionally received the name of the American lion, from the similarity of its proportions and colour to the lion of the old world. He is little inferior in size, and not at all in the fancied qualities of magnanimity, clemency, and generosity, which have been so lavishly attributed to the "king of beasts." He may be stated to be about one-third less than the lion; he has no mane, nor any tuft at the extremity of the tail, which is about half the length of the body and head. The cougar was at an early period distributed in considerable number over the whole of the warm and temperate regions of this continent, and it is still found, though by no means abundantly, in the southern, middle, and north-western parts of the Union, becoming, however, gradually more rare as the population increases, and cultivation is extended. It is a savage and

destructive animal, yet timid and cautious. In ferocity it is quite equal to most of its kindred species; it kills numbers of small animals for the sake of drinking their blood, and, when pressed by hunger, attacks large quadrupeds, though not always with success. When the cougar seizes a sheep or a calf, it is by the throat; and then, flinging the victim over its back, it dashes off with great ease and celerity, to devour it at leisure. Deer, hogs, sheep, and calves, are destroyed by the cougar whenever they are within reach; and occasionally these animals have committed extensive ravages among the stock of the frontier settlers. They climb, or rather spring up large trees with surprising facility and vigour, and in that way are enabled, by dropping suddenly upon deer and other quadrupeds, to secure prey which it would be impossible for them to overtake. In the day-time the cougar is seldom seen; but its peculiar cry frequently thrills the experienced traveller with horror, while encamping in the forest at night; or he is startled to hear the cautious approaches of the animal, stealing step by step towards him over the crackling brushwood and leaves, in expectation of springing on an unguarded or sleeping victim, whom nothing but a rapid flight can save.

The northern lynx is a fierce and subtle creature, exhibiting most of the traits of character which distinguish animals of the cat kind. To the smaller quadrupeds, such as rabbits, hares, lemmings, &c., it is exceedingly destructive, never leaving the vicinities they frequent until their numbers are altogether destroyed, or exceedingly thinned. But the ravages of the northern lynx are not confined to such small game: it drops from the branches of trees on the necks of deer, and clinging firmly with its sharp-hooked claws, ceases not to tear at the throat and drink the blood of the animal, until it sinks exhausted, and expires. It attacks sheep and calves in the same manner, and preys upon wild turkeys and other birds, which it is capable of surprising even on the tops of the highest trees.

The United States, to which Dr. Godman thinks the brown bear is not native, present us with two principal species of this animal, of remarkably different characteristics. The black bears feed principally on grapes, plums, whortle-berries, persimmons, bramble and other berries; they are also particularly fond of the acorns of the live oak, on which they grow excessively fat in Florida. In attempting to procure these acorns, they subject themselves to great perils; for, after climbing these enormous oak trees, they push themselves along the limbs towards the extreme branches, and with their fore-paws bend the twigs within reach, thus exposing themselves to severe and even fatal accidents, in case of a fall. They are also very fond of the different kinds of nuts and esculent roots; and often ramble to great distances from their dens in search of whortle-berries, mulberries, and indeed all sweet-flavoured and spicy fruits. Birds, small quadrupeds, insects, and eggs, are also devoured by them whenever they can be obtained. They are occasionally very

injurious to the frontier settlers, by their incursions in search of potatoes and young corn, both of which are favourite articles of food. Their claws enable them to do great mischief in potatoe grounds, as they can dig up a large number in a short time; and where the bears are numerous, their ravages are occasionally very extensive. In the vicinity of Hudson's Bay, the black bear has been observed to feed entirely on water-insects during the month of June, when the berries are not ripe. These insects, of different species, are found in astonishing quantities in some of the lakes; the bear, swimming with his mouth open, gathers those on the surface of the water. They are even believed to feed on those which die, and are washed on shore. The flesh of the animal is spoiled by this diet; though individuals killed at a distance from the water are agreeably flavoured at the same time of the year. The black bear is in fact very indiscriminate in his feeding, and though suited by nature for the almost exclusive consumption of vegetable food, he refuses scarcely any thing when pressed by hunger; he is, moreover, voracious as well as indiscriminate in satisfying his appetite, and frequently gorges until his stomach loaths and rejects its contents. He seeks with great assiduity for the larvæ or grubs of various insects, and exerts a surprising degree of strength in turning over large trunks of fallen trees, which, whenever sufficiently decayed to admit of it, he tears to pieces in search of worms. When the bear seizes a living animal, he does not, as most other beasts do, first put it to death, but tears it to pieces and devours it, without being delayed by its screams or struggles, and may be actually said to swallow it alive.

The black bear, under ordinary circumstances, is not remarkably ferocious, nor is he in the habit of attacking man without provocation; but, when wounded, he turns on the aggressor with great fury, and defends himself desperately. They are occasionally found throughout the territories of the United States, in the wooded and mountainous regions, and in unsettled districts, where their skins are of great value to the inhabitants, as a substitute for blankets and other manufactured woollens. They are still numerous in the wooded and thinly-settled parts of Pennsylvania, as well as in most of the other states of the Union; and, where their favourite food is plentiful, they grow to a great size, and afford a large quantity of oil. Bartram relates that he was present at the cutting up of one which weighed five or six hundred pounds, and says that his hide was apparently as large as that of an ox of six or seven hundred weight. The Indians consider this bear as one of the noblest objects of the chase, and they always manifest the highest degree of exultation when they are successful in killing one. Every part of the animal is valuable to them, even to its intestines and claws; the latter are bored at the base, and strung on deer sinews, to be worn as ornaments; the flesh is considered most delicious food, and the fore-paws as an exquisite dainty. The black bear, in common with other species of the genus,

endeavours to suffocate an adversary by violently hugging and compressing its chest. A man might end such a struggle in a few instants, if one hand were sufficiently at liberty to grasp the throat of the animal with the thumb and fingers, externally, just at the root of the tongue; as a slight degree of compression there will generally suffice to produce almost immediate suffocation.

The grizzly bear is of a totally opposite character. This animal is justly considered as the most dreadful and dangerous of North American quadrupeds, and is the despotic and sanguinary monarch of the wilds over which he ranges. Gigantic in size, and terrific in aspect, he unites to a ferociously blood-thirsty disposition a surpassing strength of limb, which gives him undisputed supremacy over every other tenant of the wilderness, and causes man himself to tremble at his approach. To the Indians, the very name of the grizzly bear is dreadful, and the killing of one is esteemed equal to a great victory. The white hunters are almost always willing to avoid an encounter with so powerful an adversary, and seldom wantonly provoke him. This formidable animal unhesitatingly pursues and attacks men or animals, when excited by hunger or by passion, and slaughters indiscriminately every creature whose speed or artifice is not sufficient to place them beyond his reach. He is capable, however, like the rest of his tribe, of living on vegetable food. This bear at present inhabits the country adjacent to the eastern side of the Chippewayan Mountains, where it frequents the plains, or resides in the copses of wood which skirt the margin of water-courses; and there is some traditional reason to believe that it once inhabited the Atlantic regions of the United States. As a specimen of his manners, we extract the following narrative:—"One evening, the men in the hindmost of one of Lewis and Clark's canoes perceived one of these bears lying in the open ground, about three hundred paces from the river; and six of them, who were all good hunters, went to attack him. Concealing themselves by a small eminence, they were able to approach within forty paces, unperceived: four of the hunters now fired, and each lodged a ball in his body, two of which passed directly through the lungs. The bear sprang up, and ran furiously with open mouth upon them: two of the hunters, who had reserved their fire, now gave him two additional wounds, and one, breaking his shoulder-blade, somewhat retarded his motions. Before they could again load their guns, he came so close on them that they were obliged to run towards the river; and before they had gained it, the bear had almost overtaken them. Two men jumped into the canoe; the other four separated, and concealing themselves among the willows, fired as fast as they could load their pieces. Several times the bear was struck, but each shot seemed only to direct his fury towards the hunter: at last, he pursued them so closely, that they threw aside their guns and pouches, and jumped from a perpendicular bank, twenty feet high, into the river. The bear sprang after them, and was very near the hindmost

man, when one of the hunters on the shore shot him through the head, and finally killed him. When they dragged him on shore, they found that eight balls had passed through his body in different directions."

The common wolf of America is considered to be the same species as the wolf of Europe. When the aboriginal Americans first gave place to European adventurers, and the forests, which had flourished for ages undisturbed, began to fall before the unsparing axe, the vicinity of the settler's lonely cabin resounded with the nightly howling of wolves, attracted by the refuse provision usually to be found there, or by a disposition to prey upon the domestic animals. During winter, when food was most difficult to be procured, packs of these famished and ferocious creatures were ever at hand, to run down and destroy any domestic animal found wandering beyond the enclosures, which their individual or combined efforts could overcome; and the boldest house-dog could not venture far from the door of his master, without incurring the risk of being killed and devoured. The common wolf was then to be found in considerable numbers, throughout a great extent, if not throughout the whole, of North America; at present, it is only known as a resident of the remote wooded and mountainous districts, where man has not fixed his abode. The prairie, or barking wolf frequents the prairies of the west, where troops or packs, containing a considerable number of individuals, are frequently seen following in the train of a herd of the buffalo or deer, for the purpose of preying on such as may die from disease, or in consequence of wounds inflicted by the hunters; at night they also approach the encampments of travellers, whom they sometimes follow for the sake of the carcasses of animals which are relinquished, and, by their discordant howlings close to the tents, effectually banish sleep from those who are unaccustomed to their noise. They are more numerous than any of the other wolves which are found in North America. In appearance the barking wolf closely resembles the domestic dog of the Indians, and is remarkably active and intelligent. Like the common wolf, the individuals of this species frequently unite to run down a deer, or a buffalo calf, which has been separated from the herd; though it requires the fullest exercise of their speed, sagacity, and strength, to succeed in this chase. They are very often exposed to great distress from want of food; and, in this state of famine, are under the necessity of filling their stomachs with wild plums, or other fruits no less indigestible, in order to allay the sensations of hunger.

Red foxes, resembling but not identical with the common fox of Europe, are very numerous in the middle and southern states of the Union, and are everywhere notorious depredators on the poultry-yards. Their haunts are most commonly in exceedingly dense thickets of young pine, where they can scarcely be followed even by dogs. The grey fox is very common throughout this country, and is found more immediately in the vicinity of human habitations than either of the other species. It is pursued by the sportsmen with more pleasure than the red fox, because it does not

immediately forsake its haunts, and run for miles in one direction, but, after various doublings, is generally killed near the place whence it first started. A small species, called the swift fox, inhabits the plains east of the Chippewayan Mountains. The most remarkable circumstance peculiar to this fox is its extraordinary swiftness, which all who have seen it agree in declaring to surpass that of any other animal with which we are at present acquainted. The fleetest antelope or deer, when running at full speed, is passed by this little fox with the greatest ease; and such is the celerity of its motion, that it is compared to the flight of a bird along the ground, rather than the course of a quadruped. Other observers have stated, that, when in full speed over the plain, the effect produced on the eye makes the animal resemble a line drawn rapidly along the surface; so impossible is it to distinguish any of the parts of its body, on account of its surprising velocity.

A species of otter, analogous to the European, is found in the United States. In the southern, middle, and eastern states of the Union, they are comparatively scarce; but in the western states they are in many places still found in considerable numbers, and on the tributaries of the Missouri they are very common. A singular sportive habit has been observed in them, viz. that of sliding; and for this purpose, in winter, the highest ridge of snow is selected, to the top of which the otters scramble, where, lying on the belly, with the fore feet bent backwards, they give themselves an impulse with their hind legs, and swiftly glide head foremost down the declivity, sometimes for the distance of twenty yards. This sport they continue, apparently with the keenest enjoyment, until fatigue or hunger induces them to desist. In the summer this amusement is obtained by selecting a spot where the river bank is sloping, has a clayey soil, and the water at its base is of a considerable depth. The otters then remove from the surface, for the breadth of several feet, the sticks, roots, stones, and other obstructions, and render it as level as possible. They climb up the bank at a less precipitous spot, and starting from the top, slip with velocity over the inclining ground, and plunge into the water to a depth proportioned to their weight and rapidity of motion. After a few slides and plunges, the surface of the clay becomes very smooth and slippery, and the rapid succession of the sliders shows how much these animals are delighted by the game, as well as how capable they are of performing actions which have no other object than that of pleasure or diversion. This amusement is so congenial to the frolic spirit of boyhood, that in vicinities where otter-slides are found, youngsters, while bathing, sometimes take possession of one, and, sitting at the top, glide thence with great glee into the water.

Pedestrians, led by business or by pleasure to ramble through the country during the morning or evening twilight, occasionally see a small and pretty animal a short distance before them in the path, scampering forward without appearing much alarmed, and advancing in a zig-zag or somewhat serpentine direction. Experienced persons

generally delay long enough to allow this unwelcome fellow-traveller to withdraw from the path; but it often happens that a view of the animal arouses the ardour of the observer, who, in his fondness for sport, thinks not of any result but that of securing a prize. It would be more prudent to rest content with pelting this quadruped from a safe distance, or to drive it away by shouting loudly; but almost all inexperienced persons, the first time such an opportunity occurs, rush forward with intent to run the animal down. This appears to be an easy task. In a few moments it is almost overtaken; a few more strides and the victim may be grasped by its long and waving tail—but that tail is now suddenly curled over the back, its pace is slackened, and in one instant the condition of things is entirely reversed: the lately triumphant pursuer is eagerly flying from his intended prize, involved in an atmosphere of stench, gasping for breath, or blinded and smarting with pain, if his approach were sufficiently close to allow of his being struck in the eyes by the pestilent fluid of the skunk. Should the attack on this creature be led by a dog, and he be close when the disgusting discharge is made, he runs with tail between his legs howling away, and, by thrusting his nose into the soil as he retreats, tries to escape from the horrible effluvium, which renders the air in the immediate vicinity too stifling to be endured. This animal is the skunk, which inhabits the whole of North America, in the forests or their immediate vicinity.

Raccoons also are found throughout the whole of North America; and they still continue to be numerous in many of the well-peopled parts of the United States. Occasionally their numbers are so great as to render them very troublesome to the farmers in the low and wooded parts of Maryland, bordering on the Chesapeake Bay. To the capricious mischievousness of the monkey, the raccoon adds a blood-thirsty and vindictive spirit peculiarly his own. In the wild state, his sanguinary appetite frequently leads to his own destruction, which his nocturnal habits might otherwise avert; but, as he slaughters the tenants of the poultry-yard with indiscriminate ferocity, the vengeance of the plundered farmer speedily retaliates on him the death so liberally dealt among the feathered victims. The fur of the raccoon forms an article of considerable value in commerce, as it is largely employed in the fabrication of hats. The American badger is a pretty little animal, and its aspect is not unlike that of some small pug-faced dogs. It is found most frequently on the plains adjacent to the Missouri and its tributaries, as well as on those near the Columbia river, both in the open country and in the woods. The wolverene, or American glutton, is one of the most destructive animals found in the northern parts of the continent. He is slow in his motions, but strong, and full of stratagem. He causes much trouble to hunters and travellers who attempt to secure provisions by burying them in the snow, or to protect them by coverings of boughs and trunks of trees; since it is almost impossible to prevent this creature from gaining access to

such places of deposit, either by strength or by stratagem, and destroying the stock on which the voyager may have counted for his future subsistence and safety. To the hunters the wolverene is also very injurious, by robbing their traps of the animals which are taken in them, before the arrival of the owners. Among the small quadrupeds inhabiting this continent, few are to be found equalling the ermine in beauty; perhaps none that excel it in the qualities of courage, graceful celerity of movement, and untiring activity. Its whole aspect inspires the beholder with an idea of its character, which is well supported by its actions. It is found in the northern and middle states, and its habits are similar to those of the common weasel of Europe.

The shrews belonging to this country are remarkable for their diminutive size and apparent helplessness. They are generally found in the country, where their residence is either in burrows, or among heaps of stones, or in holes made by other animals; near dung-heaps, hay-ricks, or privies, they are more numerous than elsewhere. Insects are their principal subsistence, but they seem no less fond of grain, putrid flesh, and filth of various sorts; as they have been occasionally seen rioting in ordure, in a manner similar to the hog. The shrew-mole is found abundantly in North America, from Canada to Virginia, often living at no great distance from water-courses, or in dykes thrown up to protect meadows from inundation. This creature, when at rest, bears more resemblance to a small stuffed sack than to a living animal, its head being entirely destitute of external ears, and elongated nearly to a point, and its eyes so extremely small, and completely hidden by the fur, that it would not be surprising should a casual observer conclude this creature to be blind. It is endowed, however, with considerable powers of action, and doubtless of enjoyment; though we cannot enter here into the details of its extensive and curious subterraneous operations.

The usual haunts of the opossum are thick forests, and their dens are generally in the hollows of decayed trees, where they pass the day asleep, and sally forth mostly after nightfall to seek for food. The hunting of the opossum is a favourite sport with the country people, who frequently go out with their dogs at night, after the autumnal frosts have begun, and the persimmon fruit is in its most delicious state. The opossum, as soon as he discovers the approach of his enemies, lies perfectly close to the branch, or places himself snugly in the angle where two limbs separate from each other; the dogs, however, soon announce the fact of his presence by their baying, and the hunter, ascending the tree, discovers the branch upon which the animal is seated, and begins to shake it with great violence, to alarm and cause him to relax his hold. This is soon effected; and the opossum, attempting to escape to another limb, is pursued immediately, and the shaking is renewed with greater violence, until at length the terrified quadruped allows himself to drop to the ground, where hunters or dogs are prepared to dispatch him. Should the hunter, as frequently happens, be unaccompanied by dogs,

when the opossum falls to the ground, it does not immediately make its escape, but steals slowly and quietly to a little distance, and then, gathering itself into as small a compass as possible, remains as still as if dead. After remaining in this apparently lifeless condition for a considerable time, or so long as any noise indicative of danger can be heard, the creature slowly unfolds himself, and, creeping as closely as possible upon the ground, would fain sneak off unperceived; but upon a shout or outcry in any tone from his persecutor, he immediately renews his deathlike attitude and stillness. If then approached, moved, or handled, he is still seemingly dead, and might deceive any one not accustomed to his actions. This artifice is repeated as frequently as opportunity is allowed him of attempting to escape, and is known so well to the country people as to have long since passed into a proverb. "He is playing the opossum," is a phrase applied with great readiness by them to any one who is thought to act deceitfully, or wish to appear what he is not.

The beaver has at a former period inhabited the territory of the United States much more extensively than at present. In various parts of the western country, where they are at present entirely unknown, except by tradition, the dams constructed by their labours are still standing securely, and in many instances serve instead of bridges to the streams they obstruct. There are few states in the Union in which some remembrance of this animal is not preserved by such names as Beaver-Dam, Beaver-Lake, Beaver-Falls, &c. In situations where it is frequently disturbed, all its singular habits are relinquished, and its mode of living changed to suit the nature of circumstances; instead of building dams and houses, its only residence is then in the banks of the stream, where it is forced to make an extensive excavation, and to be content to adopt the manners of a musk-rat. More sagacity is displayed by the beaver in thus accommodating itself to circumstances, than in any other action it performs. Such is the caution which it exercises to guard against detection, that were it not for the removal of small trees, the stumps of which indicate the sort of animal by which they have been cut down, the presence of the beaver would not be suspected in the vicinity. All excursions for the sake of procuring food are made late at night; and if it pass from one hole to another during the daytime, it swims so far under water as not to excite the least suspicion of the presence of such a voyager. On many parts of the Mississippi and the Missouri, where the beaver formerly built houses according to the usual mode, no such works are at present to be found, although beavers are still to be trapped in those localities. These circumstances throw light on the character of the European beaver, which has been thought to belong to another species, because it does not build. The value of the fur of these animals is well known. The capture, or trapping of them, is a large part of the business both of the Indians and the whites. It is a subject of regret that an animal so valuable and so prolific should be hunted in a manner tending to the extermination of the species, when a little care and

management on the part of those interested might prevent unnecessary destruction, and preserve the sources of their revenue. In the Hudson's Bay possessions they are becoming annually more scarce, and the race will eventually be extinguished throughout the whole continent; though a few individuals may, for a time, elude the immediate violence of persecution.

The musk-rat, which is closely allied in form and habits to the beaver, does not, like that timid animal, retire from the vicinities inhabited by man; but, relying on its peculiar instinct for concealment, remains secure, notwithstanding the changes induced by cultivation, and multiplies its species in the very midst of its enemies. Thus, while the beaver has long since entirely disappeared, and become forgotten, in the Atlantic states, the musk-rat is found within a very short distance of the largest and oldest cities, and bids fair to maintain its place in such situations during an indefinite future period. The animal owes this security to its nocturnal and aquatic mode of life, as well as to the peculiar method in which its domicile is constructed. Along small streams, mill-races, and ponds, where the banks are of some elevation and strength, the musk-rats form large and extensive burrows. These have their entrance always in the deep water, so as to be entered or left without betraying the presence of the animal. The mouth of the burrow ascends from its commencement near the bottom, and slopes upwards until it is above the level of the highest water; it then extends to great distances, according to the numbers or necessities of the occupants. Like most other animals residing in such burrows, the musk-rats frequently excavate them beneath the roots of large trees, where they are secure from being disturbed by having their home broken into from above. The injuries done by the musk-rat to the banks thrown up to exclude the tide from meadows and other grounds, are frequently very extensive. The tide encroaches more and more on the burrow, as the soil softens and is washed away; the animals extend their excavations in various directions, in order to free themselves from the intrusion of the water; and, at length, from the combination of both causes, the bank falls in, and the water is allowed free access, often laying waste the most valuable parts of the farm. To understand the extent to which such mischief may be carried, it is sufficient to take a walk along the banks thrown up to protect the meadows on the Delaware, on both sides of the river. Similar, though not as extensive injury, is produced along the borders of ponds, embankments, and small streams, by the falling in of the burrows formerly tenanted by the musk-rat.

The meadow-mouse is found in various degrees of abundance throughout this country, and, as implied in its name, prefers the meadow and grass fields to other situations. The banks of drains, and those thrown up to keep off the tide or the overflow of streams, are the favourite places for their burrows, which are both numerous and extensive, being continued in various directions and to considerable depths. These

burrows are frequently causes of injury similar to that resulting from those of the muskrat. "The wood-rat," says Bartram, "is a very curious animal: they are not half the size of the domestic rat, and of a dark brown or black colour; their tail slender and shorter in proportion, and covered thinly with short hair. They are singular with respect to their ingenuity and great labour in the construction of their habitations, which are conical pyramids, about three or four feet high, constructed with dry branches, which they collect with great labour and perseverance, and pile up without any apparent order; yet they are so interwoven with one another, that it would take a bear or wild cat some time to pull one of these castles to pieces, and allow the animals sufficient time to secure a retreat with their young." The wood-rat has, beyond doubt, been as common throughout this country at a former period, as it is at present in Florida and on the Missouri. It has very universally given place to the black-rat, and both have disappeared before the Norway rat. The wood-rat soon learns to infest the houses of the settlers, and to do nearly, if not quite, as much mischief as the common rat. In Florida, Georgia, and the plains adjacent to the Missouri, the pouched-rat is to be found in great numbers: their burrows are exceedingly numerous in various places, and give an appearance to the plains similar to that produced by ploughing. Over their burrows hillocks of loose earth are raised, resembling in some respects those thrown up by the shrew-mole. The jumping-mouse is a little animal very remarkable for the great length of its hind legs, and for its mode of progression, in both of which it bears some resemblance to the kangaroo of Australia, and the jerboa of the old continent. When the jumping-mouse is pursued by one or two persons, and permitted to advance in one direction, its movements resemble those of a bird rather than a quadruped, so high does it leap into the air, so great is the distance it measures at every bound, and so light and quick is its ascent and descent. The jumping-mouse, however, does not exclusively move in this manner, but is capable of running on all its feet with considerable speed; hence it frequently excites the wonder of the country people, or gives them much labour in vain, when they attempt to run it down.

The marmot is a common animal in all the temperate parts of the country, and is the cause of great injury, especially to the farmers engaged in the cultivation of clover, as their numbers become very considerable, and the quantity of herbage they consume is very large. They are the more capable of doing mischief, from their extreme vigilance and their acute sense of hearing, as well as from the security afforded them by their extensive subterranean dwellings. One species of this animal, under the name of the prairie marmot, or prairie dog, abounds near the Chippewayan Mountains. A traveller passing from the Mississippi towards the mountains, after traversing a vast expanse enlivened by numerous herds of browsing animals which here find a luxurious subsistence, and arriving at the higher and more barren

parts of the tract, is startled by a sudden shrill whistle, which he may apprehend to be the signal of some lurking savage; but, on advancing into a clearer space, the innocent cause of alarm is found to be a little quadruped, whose dwelling is indicated by a small mound of earth, near which the animal sits erect in an attitude of profound attention. Similar mounds are now seen to be scattered at intervals over many acres of ground; and the whole forms one village or community, containing thousands of inhabitants, whose various actions and gambols awaken very pleasing emotions. In some instances these villages are very limited, or at most occupy but a few acres; but nearer to the Rocky Mountains, where they are entirely undisturbed, they are found to extend even for miles. We may form some idea of the number of these animals, when we learn that each burrow contains several occupants, and that frequently as many as seven or eight are seen reposing upon one mound. Here, in pleasant weather, they delight to sport, and enjoy the warmth of the sun. On the approach of danger, while it is yet too distant to be feared, they bark defiance, and flourish their little tails with great intrepidity; but, as soon as it appears to be drawing nigh, the whole troop precipitately retire into their cells, where they securely remain until the peril be past; one by one they then peep forth, and vigilantly scrutinize every sound and object, before they resume their wonted actions. While thus near to their retreats, they almost uniformly escape the hunter; and, if killed, they mostly fall into their burrows, which are too deep to allow their bodies to be obtained. The villages found nearest the mountains have an appearance of greater antiquity than those observed elsewhere; some of the mounds in such situations are several yards in diameter, though of slight elevation, and, except about the entrance, are overgrown by a scanty herbage, which is characteristic of the vicinity of these villages. This active and industrious community of quadrupeds, like every other society, is infested by various depredators, who subsist by plunder, or are too ignorant or too indolent to labour for themselves: and hence a strange association is frequently observed in their villages; for burrowing-owls, rattlesnakes, lizards, and land-tortoises, are seen to take refuge in their habitations. The young of the marmot probably become the prey of the owl. The rattlesnakes also exact their tribute with great certainty, and without exciting alarm, as they can penetrate the inmost recesses of the burrow, and a slight wound inflicted by their fangs is followed by the immediate extinction of life.

The species of the squirrel inhabiting the United States are numerous and beautiful. Like most of the animals belonging to this order, they are very prolific, and multiply until large districts of country are injuriously overrun by them; they then invade, and literally lay waste the corn-fields, consuming vast quantities of grain, and destroy nearly as much as they eat, by breaking it down and scattering it on the ground. On such occasions, the farmers in thinly-settled districts severely suffer.

The efforts of a whole family are sometimes insufficient to drive off or destroy these busy plunderers. In the state of Ohio, in the autumn of 1822, says Dr. Godman, parts of the country appeared to swarm with squirrels, which were so numerous that, in travelling along the high road, they might be seen scampering in every direction; the woods and fields might be truly said, in the country phrase, to be "alive with them." A farmer, who had a large field of Indian corn near the road stated, that, notwithstanding the continued exertions of himself and his two sons, he feared he should lose the greater part of his crop, in addition to his time, and the expense of ammunition used in killing and scaring off the little robbers. This man and his sons frequently took stations in different parts of the field, and killed squirrels until their guns became too dirty to be used with safety; yet they always found, on returning, that the squirrels had mustered as strong as before. Squirrel-shooters were frequently met with heavily laden with this game, which, in many instances, they had only desisted from slaying through want of ammunition, or through mere fatigue. Fortunately for the farmers, these animals are not at the same time equally numerous in all parts of the country. During some seasons, they appear to move in a mass, deserting certain districts entirely, and concentrating themselves in others; in such migrations, vast numbers are drowned in crossing the rivers, and many are also destroyed by beasts and birds of prey, and various other causes.

The American porcupine exhibits none of the long and large quills which are so conspicuous and formidable in the European species; and the short spines, or prickles, which are thickly set over all the superior parts of its body, are covered by a long coarse hair, which almost entirely conceals them. These spines are not more than two inches and a half in length, yet they form a very efficient protection to the animal against every other enemy but man. In the remote and unsettled parts of Pennsylvania, the porcupine is still occasionally found; but south of this state, it is almost unknown. In the Hudson's Bay country, Canada, and New England, as well as in some parts of the western states, and throughout the country lying between the Rocky Mountains and the great western rivers, they are found in great abundance, and are highly prized by the aborigines, both for the sake of their flesh and their quills, which are very extensively and very ingeniously employed by the Indian women, as ornaments of dress.

The American hare never burrows in the ground, like the common European rabbit. When confined in a yard, the animal has been known to attempt an escape by scratching a hole in the earth, near the fence or wall; but there are few wild animals, whatever may be their character, that will not do the same under similar circumstances, though in their natural condition they may never attempt to burrow. Such is the fact in relation to the American hare, which never burrows while it is a free

tenant of the fields and woods. It has been said, that this animal also occasionally ascends trees; this must be understood solely of its going up within the trunks of hollow trees, which it effects by pressing with its back and feet against opposite sides of the hollow, ascending somewhat in the same manner as a sweep climbs a chimney. The hare is not hunted in America as in Europe, but is generally roused by a dog, and shot, or is caught in various snares and traps. In its movements it closely resembles the common hare of Europe, bounding along with great celerity; and would, no doubt, when pursued, resort to the artifices of doubling, &c., so well known to be used by the European animal.

The sloth is not found in the republic, except in a fossil state; and these remains are of three gigantic but extinct species. Not even fossil traces have occurred of the kindred animals. We have already noticed the remains of the mastodon, which is allied to the elephant; and may here add, that bones of an extinct species of elephant also have been found. No living animal of that entire order appears to exist on the North American continent.

The ruminant animals abound. The species of deer come first to our notice. The moose was formerly found throughout the New England states, but is now confined to that of Maine, and is there becoming unfrequent. Judging by the rapid diminution of this species within a comparatively few years, it is to be feared that it will at no great distance of time be exterminated. The American elk is a stately and beautiful animal, which is believed at some period to have ranged over the greater part, if not the whole, of the continent. The common deer is the smallest American species at present known, and is found throughout the country between Canada in the north, and the banks of the Orinoco in South America. It has always been of great importance to the aborigines of America, as an abundant source of food and raiment; nor has its value been less to the pioneers of civilization, in their advances into the untrodden solitudes of the west. The improvements in agriculture have long since rendered this supply of food of comparatively little value to the white man; yet vast numbers of this species are annually destroyed, equally for the sake of their flesh, hides, and horns. Notwithstanding this extensive consumption, however, the species does not appear to be very rapidly diminishing, if we except the immediate vicinity of very thickly-peopled districts. Even in these, where the destruction of deer during the breeding-season is prevented by law, the increase seems quite equal to the demand; and such humane and judicious provisions will probably preserve this beautiful race to adorn the forests, long after the species is exterminated in situations where it is not thus protected.

The prong-horn antelope is a beautiful creature, ranging over the Chippewayan Mountains. It is of wonderful fleetness, and so shy and timorous, as but seldom to repose, except on ridges which command a view of the surrounding country. The

acuteness of their sight, and the exquisite delicacy of their smell, render it exceedingly difficult to approach them; and, when once danger is perceived, the celerity with which the ground is passed over appears to the spectator to resemble the flight of a bird, rather than the motion of a quadruped. "The chief game of the Shoshonees," say Lewis and Clarke, "is the antelope; which, when pursued, retreats to the open plains, where the horses have full room for the chase. But such is its extraordinary fleetness and wind, that a single horse has no possible chance of outrunning it, or tiring it down; and the hunters are, therefore, obliged to resort to stratagem. About twenty Indians, mounted on fine horses, armed with bows and arrows, left the camp: in a short time they descried a herd of ten antelopes; they immediately separated into squads of two or three, and formed a scattered circle round the herd for five or six miles, keeping at a wary distance, so as not to alarm them till they were perfectly enclosed, and usually selecting some commanding eminence as a stand. Having gained their positions, a small party rode towards the herd, and, with wonderful dexterity, the huntsman preserved his seat, and the horse his footing, as he ran at full speed over the hills and down the steep ravines, and along the borders of the precipices. They were soon outstripped by the antelopes, which, on gaining the other extremity of the circle, were driven back, and pursued by the fresh hunters. They turned, and flew, rather than ran, in another direction; but there, too, they found new enemies. In this way they were alternately pursued, backwards and forwards, till at length, notwithstanding the skill of the hunters, (who were merely armed with bows and arrows,) they all escaped; and the party, after running for two hours, returned without having caught any thing, and their horses foaming with sweat. This chase, the greater part of which was seen from the camp, formed a beautiful scene; but to the hunters it is exceedingly laborious, and so unproductive, even when they are able to worry the animal down and shoot him, that forty or fifty hunters will sometimes be engaged for more than half a day, without obtaining more than two or three antelopes." The Chippewayan Mountains have afforded also one species of goat, and one of sheep, of which it might be well for more to be known.

Of the ox kind, the bison, or buffalo, is the only, and a very remarkable species. The buffalo was formerly found throughout the whole territory of the United States, with the exception of that part which lies east of Hudson's River and Lake Champlain, and of narrow strips of coast on the Atlantic Ocean and the Gulf of Mexico. At present it is scarcely seen east of the Mississippi. Its great range is over the plains between this river and the Chippewayan Mountains, but it is met with also in the territory of Oregon. To the Indians and the visitors of the western regions the bison is almost invaluable: they supply a large part of the food used by the natives, and covering to their tents and persons; while, in many parts of the country,

there is no fuel to be obtained but the dried dung of this animal. The herds of bison wander over the country in search of food, usually led by a bull most remarkable for strength and fierceness. While feeding, they are often scattered over a great extent of country; but when they move in a mass they form a dense and almost impenetrable column, which, once in motion, is scarcely to be impeded. Their line of march is seldom interrupted, even by considerable rivers, across which they swim without fear or hesitation, nearly in the order in which they traverse the plains. When flying before their pursuers, it would be in vain for the foremost to halt, or to attempt to obstruct the progress of the main body; as the throng in the rear still rush onward, the leaders must advance, although destruction awaits the movement. The Indians take advantage of this circumstance, to destroy great quantities of this favourite game; and, certainly, no mode could be resorted to more effectually destructive, nor could a more terrible devastation be produced, than by forcing a numerous herd of these large animals to leap together from the brink of a dreadful precipice, upon a rocky and broken surface a hundred feet below. When the Indians determine to destroy bison in this way, one of their swiftest-footed and most active young men is selected, who is disguised in a bison skin, having the head, ears, and horns adjusted on his own head, so as to make the deception very complete; and, thus accoutred, he stations himself between the bison herd and some of the precipices which often extend for several miles along the rivers. The Indians surround the herd as nearly as possible; when, at a given signal, they show themselves, and rush forward with loud yells. The animals being alarmed, and seeing no way open but in the direction of the disguised Indian, run towards him, and he, taking to flight, dashes on to the precipice, where he suddenly secures himself in some previously-ascertained crevice. The foremost of the herd arrives at the brink—there is no possibility of retreat, no chance of escape: the foremost may, for an instant, shrink with terror; but the crowd behind, who are terrified by the approaching hunters, rush forward with increasing impetuosity, and the aggregated force hurls them successively from the cliff, where certain death awaits them.

We may here introduce, from Dr. Harman, a statement of the number of North American quadrupeds which he conceives to be common both to the new and the old world.

Species.	Species.	Species
1 Mole.	2 Wolf.	1 Field-mouse.
2 Shrew.	2 Fox.	1 Campagnol (rat.)
1 Bear.	2 Seal.	1 Squirrel.
1 Glutton.	2 Weasel.	2 Deer.
1 Otter.	1 Beaver.	1 Sheep.

The whole number of common species is twenty-one; leaving eighty-six species as peculiar to North America, though not all of them to the United States.

Among cetaceous animals, the lamantin, or sea-cow, is found on the coast of Florida. When full grown, it is from fifteen to twenty feet in length, by eight in circumference, and weighs several thousand pounds. After having satisfied its hunger by feeding on the sea grass or fucus, which constitutes its principal nourishment, it delights to sleep upon the marshy grounds in the shallows, where it lies with the snout elevated above the water. It is there easily taken by the harpooners. "Shoals of dolphins," says Dr. Godman, "may be seen almost every day, and at any hour, feeding or sporting in the bay and rivers near the city of New York, where we have sometimes enjoyed an opportunity of observing, from the wharf, a large shoal of them moving down the Hudson with the tide; some plunging along, as if in haste, others apparently at play, and others very slow in rising to the surface for breath, and as gradually disappearing, allowing their dorsal fin to remain for a considerable time above the surface." From the month of May until towards the end of autumn, the true dolphins frequent the bays and salt-water rivers of the United States, in great numbers. They are most numerous and are best observed during the run of the herring and shad, upon which they doubtless feast abundantly; they appear gradually to diminish in number as these fish retire from the rivers and coast, though a small party may be occasionally seen very late in the season. The gladiator dolphins, so celebrated for attacking and destroying the whales, are found on the New England coasts. As they commonly swim in small troops, they attack the whale in a body, and tear off great pieces of his flesh, until, becoming excited to a certain degree, he thrusts out his tongue, when they immediately fasten on this organ and devour it, and finally, gaining access to his mouth, they destroy the life of the animal. The porpoise, or sea-swine, is not ascertained to have been seen in the waters of the republic; the animal generally called by this name is the true dolphin. The spermaceti cachalot is found in greatest abundance in the Pacific Ocean, where large numbers of them are annually killed by the American and other whalers, for the sake of their oil and spermaceti.

The Ornithology of the United States exhibits a rich display of the most splendid colours, from the green, silky, gold-bespangled down of the minute humming-bird, scarcely three inches in extent, to the black coppery wings of the gloomy condor, of sixteen feet, an occasional visitant of the republic; a numerous and powerful band of songsters, which, for sweetness, variety, and melody, are surpassed perhaps by no country on earth; an ever-changing scene of migration from torrid to temperate, and from northern to southern regions, in quest of suitable seasons, food, and climate; and an amazing diversity in habit, economy, form, disposition, and faculties. The study of this branch of the natural history of their adopted country seems to have been long neglected by its new inhabitants, the manners, language, and faces of the feathered tribes being in general either overlooked or unknown; and the substantial

enlargement of science in this department is mainly to be referred to Alexander Wilson, a Scotchman, whose name cannot be recorded without attaching to it as high an encomium as a passionate attachment to natural science, manifested in a thousand instances of personal labour and hazardous adventure, can deserve. Other writers, among whom we may mention Ord, Bonaparte, and Audubon, have meritoriously followed in his train; and from them we shall gather our brief notices of the principal birds of the United States.

We begin with the birds of prey. Vultures of several species are common. One called the turkey buzzard is remarked for a habit of repelling an assailant by vomiting matter intolerably offensive. They eat so immoderately, that frequently they are incapable of rising, and may be caught without much difficulty; but few that are acquainted with them will have the temerity to undertake the task. A man in the state of Delaware, a few years since, observing some turkey buzzards regaling themselves upon the carcass of a horse, which was in a highly putrid state, conceived the design of making a captive of one, to take home for the amusement of his children. He cautiously approached, and, springing upon the unsuspecting group, grasped a fine plump fellow in his arms, and was bearing off his prize in triumph, when, lo! the indignant vulture disgorged such a torrent of filth in the face of our hero, that it produced all the effects of the most powerful emetic, and for ever cured him of his inclination for turkey buzzards.—The habits of the black vulture, or carrion crow, which is not found higher than North Carolina, are singular. In the towns and villages of the southern states, the carrion crows may be seen either sauntering about the streets, or sunning themselves on the roofs of the houses, and the fences; or, if the weather be cold, cowering round the tops of the chimneys, to enjoy the benefit of the heat, which to them is a great pleasure. They are protected either by law or by usage, and may be said to be completely domesticated, being as common as the domestic poultry, and equally familiar. The inhabitants generally are disgusted with their filthy, voracious habits; but notwithstanding, being viewed as conducive to the removal of the dead animal matter, which, if permitted to putrify during the hot season would render the atmosphere impure, they have a respect paid them as scavengers, whose labours are subservient to the public good. It sometimes happens, that, after having gorged themselves, these birds vomit down the chimneys, which must be intolerably disgusting, and can scarcely fail to provoke the ill-will of those whose hospitality is thus required.

For strength, spirit, and activity, the ring-tailed eagle ranks among the first of its tribe. A still more interesting species is the bald eagle, which, as he is one of the most beautiful of his tribe in this part of the world, and the adopted emblem of the republic, is entitled to particular notice. The celebrated cataract of Niagara is a noted place of resort for the bald eagle, as well on account of the fish procured there, as for the

numerous carcasses of squirrels, deer, bears, and various other animals, which, in their attempts to cross the river above the falls, have been drawn into the current, and precipitated down that tremendous gulf, where, among the rocks that bound the rapids below, they furnish a rich repast for various predaceous birds. He is also found generally in the vicinity of the sea, and along the shores and cliffs of the lakes and large rivers. Formed by nature for braving the severest cold; feeding equally on the produce of the sea, and of the land; possessing powers of flight capable of outstripping even the tempests themselves; unawed by any thing but man; and, from the ethereal heights to which he soars, looking abroad, at one glance, on an immeasurable expanse of forests, fields, lakes, and ocean, deep below him, he appears indifferent to the little localities affected by change of seasons; as, in a few minutes, he can pass from summer to winter, from the lower to the higher regions of the atmosphere, the abode of eternal cold; and from thence descend, at will, to the torrid or the arctic regions of the earth. He is, therefore, found at all seasons, in the countries he inhabits; but he prefers such places as have been mentioned above, from the great partiality he has for fish. In procuring these, he displays in a very singular manner the genius and energy of his character, which is fierce, contemplative, daring, and tyrannical; attributes not exerted but on particular occasions, but, when put forth, overpowering all opposition. Elevated on the high dead limb of some gigantic tree that commands a wide view of the neighbouring shore and ocean, he seems calmly to contemplate the motions of the various feathered tribes that pursue their busy avocations below: the snow-white gulls slowly winnowing the air; the busy *tringæ* coursing along the sands; trains of ducks streaming over the surface; silent and watchful cranes, intent and wading; clamorous crows; and all the winged multitudes that subsist by the bounty of this vast liquid magazine of nature. High over all these appears one, whose action instantly arrests his whole attention. By his wide curvature of wing, and sudden suspension in air, he knows him to be the fish-hawk, settling over some devoted victim of the deep. His eye kindles at the sight, and, balancing himself, with half-opened wings, on the branch, he watches the result. Down, rapid as an arrow, descends the distant object of his attention, the roar of its wings reaching the ear as it disappears in the deep, making the surges foam around. At this moment, the eager looks of the eagle are all ardour; and, levelling his neck for flight, he sees the fish-hawk once more emerge, struggling with his prey, and mounting in the air with screams of exultation. These are the signal for our hero, who, launching into the air, instantly gives chase, and soon gains on the fish-hawk; each exerts his utmost strength to mount above the other, displaying in these rencontres the most elegant and sublime aerial evolutions. The unencumbered eagle rapidly advances, and is just on the point of reaching his opponent, when, with a sudden scream, probably of despair and honest execration, the latter drops his fish: the eagle, poisoning himself for a moment, as if to

take a more certain aim, descends like a whirlwind, snatches it in his grasp ere it reaches the water, and bears his ill-gotten booty silently away to the woods. These predatory attacks and defensive manœuvres of the eagle and the fish-hawk are matters of daily observation along the whole of the seaboard, from Georgia to New England, and frequently excite great interest in the spectators. Sympathy, however, on this as on most other occasions, generally sides with the honest and laborious sufferer, in opposition to the attacks of power, injustice, and rapacity, qualities for which our hero is so generally notorious, and which, in his superior, man, are certainly detestable. As for the feelings of the poor fish, they seem altogether out of the question. When driven, as the eagle sometimes is, by the combined courage and perseverance of the fish-hawks from their neighbourhood, and forced to hunt for himself, he retires more inland, in search of young pigs, of which he destroys great numbers. In the lower parts of Virginia and North Carolina, where the inhabitants raise vast herds of those animals, complaints of this kind are very general against him. He also destroys young lambs, in the early part of spring; and will sometimes attack old sickly sheep, aiming furiously at their eyes. This eagle is said to live to the great age of sixty, eighty, or even a hundred years. A still finer bird, the sea-eagle, which dives for its own prey, has also been discovered in the United States, though it is not common. An account of it is given by Audubon, who has called it the bird of Washington.^b

The fish-hawk is migratory, arriving on the coasts of New York and New Jersey about the twenty-first of March, and retiring to the south about the twenty-second of September. This formidable, vigorous-winged, and well-known bird, subsists altogether on the finny tribes that swarm in the bays, creeks, and rivers; procuring his prey by his own active skill and industry, and seeming no further dependent on the land than as a mere resting place, or, in the usual season, a spot of deposit for his nest, eggs, and young. On the arrival of these birds in the northern parts of the United States, in March, they sometimes find the bays and ponds frozen, and experience a difficulty in procuring fish for many days; yet there is no instance on record of their attacking birds, or inferior land animals, with intent to feed on them; though their great strength of flight, as well as of feet and claws, would seem to render this no difficult matter: but they no sooner arrive, than they wage war on the bald eagles, as against a horde of robbers and banditti; sometimes succeeding, by force of numbers and perseverance, in driving them from their haunts, but seldom or never attacking them in single combat. The flight of the fish-hawk, his manœuvres while in search of fish, and his manner of seizing his prey, are deserving of particular notice. In leaving the nest, he usually flies direct until he comes to the sea; he then sails round in

^b Ornithological Biography.

easy curving lines, turning sometimes in the air as on a pivot, apparently without the least exertion, rarely moving the wings, his legs extended in a straight line behind, and his remarkable length, and curvature or bend of wing, distinguishing him from all other hawks. The height at which he thus elegantly glides is various, from one hundred to one hundred and fifty and two hundred feet, sometimes much higher, all the while calmly reconnoitring the face of the deep below. Suddenly he is seen to check his course, as if struck by a particular object, which he seems to survey for a few moments with such steadiness that he appears fixed in air, flapping his wings. This object, however, he abandons, or rather the fish he had in his eye has disappeared and he is seen sailing round as before. Now his attention is again arrested, and he descends with great rapidity; but ere he reaches the surface, shoots off on another course, as if ashamed that a second victim had escaped him. He now flies at a short height above the surface, and by a zig-zag descent, and without seeming to dip his feet in the water, seizes a fish, which, after carrying a short distance, he perhaps drops, or yields up to the bald eagle, and again ascends, by easy spiral circles, to the higher regions of the air, where he glides about in all the ease and majesty of his species. At once, from this aerial height, he descends like a perpendicular torrent, plunging into the sea with a loud rushing sound, and with the certainty of a rifle. In a few moments he emerges, bearing in his claws his struggling prey, which he always carries head foremost, and, having risen a few feet above the surface, shakes himself as a water-spaniel would do, and directs his heavy and laborious course directly for the land; and if the wind blow hard, and his nest lie in the quarter from whence it comes, it is amusing to observe with what judgment and exertion he beats to windward, not in a direct line, that is, in the wind's eye, but making several successive tacks to gain his purpose. His flight will appear the more striking, when we consider the size of the fish which he sometimes bears along. A shad was taken from a fish-hawk near Great Egg Harbour, on which he had begun to regale himself, and had already eaten a considerable portion of it; the remainder weighed six pounds. Another fish-hawk was passing Mr. Beasley's, at the same place, with a large flounder in his grasp, which struggled and shook him so, that he dropped it on the shore; the flounder was picked up, and served the whole family for dinner. It is singular that the hawk never descends to pick up a fish which he happens to drop, either on the land or on the water. In his fishing pursuits he sometimes mistakes his mark, or overrates his strength, by striking fish too large and powerful for him to manage: in this case he is dragged under the water, and though he sometimes succeeds in extricating himself, after being taken three or four times down, yet oftener both parties perish. The bodies of sturgeon, and of several other large fish, with a fish-hawk fast grappled in them, have at different times been found dead on the shore, cast up by the waves.

The peregrine falcon, or, according to Wilson, the great-footed hawk, is in the United States the terror of the waterfowl. When they perceive the approach of their enemy, a universal alarm pervades their ranks; even man himself, with his engine of destruction, is not more terrible, but the effect is different. When the latter is beheld, the whole atmosphere is enlivened with the whistling of wings; when the former is recognised, not a duck is to be seen in the air; they all speed to the water, and there remain till the hawk has passed them, diving the moment he comes near them. The ducks which are struck down by this bird have their backs lacerated from the rump to the neck; a proof that he strikes with his talons, and not, as vulgarly supposed, with his breast. The Mississippi kite is one of the numerous species peculiar to the western continent, feeding chiefly on insects, with an occasional repast on lizards, snakes, and small birds. Wilson gives the following account of one shot by himself: "This hawk, which proved to be a male, though wounded, and precipitated from a vast height, exhibited in his distress symptoms of great strength, and an almost unconquerable spirit. I no sooner approached to pick him up, than he instantly gave battle, striking rapidly with his claws, wheeling round and round as he lay partly on his rump, and defending himself with great vigilance and dexterity, while his dark red eye sparkled with rage. Notwithstanding all my caution in seizing him to carry him home, he struck his hind claw into my hand with such force as to penetrate to the bone. Anxious to preserve his life, I endeavoured gently to disengage it; but this made him only contract it the more powerfully, causing such pain that I had no other alternative but that of cutting the sinew of his heel with my penknife. The whole time he lived with me, he seemed to watch every movement I made, erecting the feathers of his hind head, and eyeing me with savage fierceness, and considering me, no doubt, as the greater savage of the two." ^c

The republic is visited by the snow owl, the great winged hunter, which inhabits the coldest and most dreary regions of the northern hemisphere on both continents. The great horned owl is found in almost every quarter of the United States. His favourite residence, however, is in the dark solitudes of deep swamps, covered with a growth of gigantic timber; and here, as soon as evening draws on, and mankind retire to rest, he sends forth such sounds as seem scarcely to belong to this world, startling the solitary pilgrim as he slumbers by his forest fire, and

" Making night hideous."

" Along the mountainous shores of the Ohio, and amidst the deep forests of Indiana, alone, and reposing in the woods, this ghostly watchman has frequently warned me," says Wilson, " of the approach of morning, and amused me with his singular

^c Wilson's American Ornithology.

exclamations, sometimes sweeping down and around my fire, uttering a loud and sudden *Waugh O! Waugh O!* sufficient to have alarmed a whole garrison. He has other nocturnal solos no less melodious, one of which very strikingly resembles the half-suppressed screams of a person suffocating, or throttled, and cannot fail of being exceedingly entertaining to a lonely benighted traveller, in the midst of an Indian wilderness. It preys on young rabbits, squirrels, rats, mice, partridges, and small birds of various kinds. It has been often known to prowl about the farm-house, and carry off chickens from roost. A very large one, having been wing-broken while on a foraging excursion of this kind, was kept about the house for several days, and at length disappeared, no one knew how; almost every day after this hens and chickens also disappeared, one by one, in an unaccountable manner, till, in eight or ten days, very few were left remaining. The fox, the minx, and the weasel, were alternately the reputed authors of this mischief, until one morning the old lady rising before day to bake, in passing towards the oven surprised her late prisoner, the owl, regaling himself on the body of a newly-killed hen. The thief instantly made for his hole under the house, from whence the enraged matron soon dislodged him with the brush-handle, and without mercy despatched him. In this snug retreat were found the greater part of the feathers, and many large fragments of her whole family of chickens." The barn owl, though so common in Europe, is rare in the United States, and is only found there during very severe winters; this may possibly be owing to the want of those favourite recesses in this part of the world, which it so much affects in the eastern continent.

The most singular bird of this species, and one whose habits are strikingly at variance with the general characteristics of the family, is the burrowing owl. He is found in the trans-mississippian territories of the United States, residing exclusively in the villages of the marmot, or prairie dog, whose excavations are so commodious as to render it unnecessary that our bird should dig for himself, as he is said to do in other parts of the world, where no burrowing animals exist. In all these prairie-dog villages the burrowing owl is seen moving briskly about, or else in small flocks scattered among the mounds; and, at a distance, it may be mistaken for the marmot itself when sitting erect. They manifest but little timidity, and allow themselves to be approached sufficiently close for shooting; but, if alarmed, some or all of them soar away, and settle down again at a short distance: if farther disturbed, their flight is continued until they are no longer in view, or they descend into their dwellings, whence they are difficult to dislodge. Mr. Say uniformly noticed the ruinous condition of the burrows tenanted by the owl, which had frequently fallen in, and their sides channelled by the rains; while the neat and well-preserved mansion actually occupied by the marmot shewed the active care of a skilful and industrious owner. We have no evidence that the owl and marmot habitually

resort to one burrow; yet we are assured, by Pike and others, that a common danger often drives them into the same excavation, where lizards and rattlesnakes also enter for concealment and safety.

Of 168 kinds of parrots enumerated by European writers as inhabiting the various regions of the globe, the Carolina parrot is the only species found native within the territory of the United States. This bird inhabits the interior of Louisiana, and the shores of the Mississippi and Ohio, and their tributary waters, even beyond the Illinois river, to the neighbourhood of Lake Michigan in lat. 42 deg. north; and, contrary to the generally-received opinion, is chiefly resident in all these places. Eastward of the Apalachian, it is seldom seen farther north than the state of Maryland, though straggling parties have been occasionally observed among the valleys of the Juniata, and, according to some, even twenty-five miles to the north-west of Albany, in the state of New York. "At Big-bone Lick," says Wilson, "thirty miles from the mouth of Kentucky river, I saw them in great numbers. They came screaming through the woods in the morning, about an hour after sunrise, to drink the salt water, of which they, as well as the pigeons, are remarkably fond. When they alighted on the ground, it appeared at a distance as if covered with a carpet of the richest green, orange, and yellow: they afterwards settled in one body on a neighbouring tree, which stood detached from any other, covering almost every twig of it; and the sun, shining strongly on their gay and glossy plumage, produced a very beautiful and splendid appearance. Here I had an opportunity of observing some very particular traits of their character. Having shot down a number, some of which were only wounded, the whole flock swept repeatedly around their prostrate companions, and again settled on a low tree, within twenty yards of the spot where I stood. At each successive discharge, though showers of them fell, yet the affection of the survivors seemed rather to increase; for, after a few circuits round the place, they again alighted near me, looking down on their slaughtered companions with such manifest symptoms of sympathy and concern as entirely disarmed me." We are tempted to give a further extract, though somewhat long, from Wilson's account, not merely for the sake of exhibiting the habits of the bird, but because it shows something of the manner in which this enthusiastic naturalist prosecuted his inquiries. "Anxious to try the effects of education on one of those which I procured at Big-bone Lick, and which was but slightly wounded in the wing, I fixed up a place for it in the stern of my boat, and presented it with some cockle burs, which it freely fed on in less than an hour after being on board. The intermediate time between eating and sleeping was occupied in gnawing the sticks that formed its place of confinement, in order to make a practicable breach, which it repeatedly effected. When I abandoned the river, and travelled by land, I wrapped it up closely in a silk handkerchief, tying it tightly round, and carried it in my pocket. When I stopped for

refreshment I unbound my prisoner, and gave it its allowance, which it generally dispatched with great dexterity, unhusking the seeds from the bur in a twinkling; in doing which it always employed its left foot to hold the bur, as did several others that I kept for some time. I began to think that this might be peculiar to the whole tribe, and that they all were, if I may use the expression, left-footed; but by shooting a number afterwards while engaged in eating mulberries, I found sometimes the left, sometimes the right foot stained with the fruit, the other always clean: from which, and the constant practice of those I kept, it appears, that, like the human species in the use of their hands, they do not prefer one or the other indiscriminately, but are either left or right-footed. But to return to my prisoner: in recommitting it to 'durance vile' we generally had a quarrel, during which it frequently paid me in kind for the wound I had inflicted and for depriving it of liberty, by cutting and almost disabling several of my fingers with its sharp and powerful bill. The path through the wilderness between Nashville and Natchez is in some places bad beyond description. There are dangerous creeks to swim, miles of morass to struggle through, rendered almost as gloomy as night by a prodigious growth of timber, and an underwood of canes and other evergreens; while the descent into these sluggish streams is often ten or fifteen feet perpendicular, into a bed of deep clay. In some of the worst of these places, where I had, as it were, to fight my way through, the paroquet frequently escaped from my pocket, obliging me to dismount and pursue it, through the worst of the morass, before I could regain it. On these occasions I was several times tempted to abandon it; but I persisted in bringing it along. When at night I encamped in the woods, I placed it on the baggage beside me, where it usually sat, with great composure, dozing and gazing at the fire till morning. In this manner I carried it upwards of a thousand miles in my pocket, where it was exposed all day to the jolting of the horse, but regularly liberated at meal times and in the evening, at which it always expressed great satisfaction. In passing through the Chickasaw and Chactaw nations, the Indians, wherever I stopped to feed, collected around me, men, women, and children, laughing, and seeming wonderfully amused with the novelty of my companion. The Chickasaws called it in their language *Kelinky*; but when they heard me call it Poll, they soon repeated the name; and wherever I chanced to stop among these people, we soon became familiar with each other through the medium of Poll. On arriving at Mr. Dunbar's, below Natchez, I procured a cage, and placed it under the piazza; where, by its call, it soon attracted the passing flocks, such is the attachment they have for each other. Numerous parties frequently alighted on the trees immediately above, keeping up a constant conversation with the prisoner. One of these I wounded slightly in the wing, and the pleasure Poll expressed on meeting with this new companion was really amusing. She crept close up to it as it hung on the side of the cage, chattering

to it in a low tone of voice, as if sympathizing in its misfortune, scratched about its head and neck with her bill; and both, at night, nestled as close as possible to each other, sometimes Poll's head being thrust among the plumage of the other. On the death of this companion, she appeared restless and inconsolable for several days. On reaching New Orleans, I placed a looking-glass beside the place where she usually sat, and the instant she perceived her image, all her former fondness seemed to return, so that she could scarcely absent herself from it a moment. It was evident that she was completely deceived. Always, when evening drew on, and often during the day, she laid her head close to that of the image in the glass, and began to doze with great composure and satisfaction. In this short space she had learnt to know her name, to answer and come when called on, to climb up my clothes, to sit on my shoulder, and to eat from my mouth. I took her with me to sea, determined to persevere in her education; but, destined to another fate, poor Poll, having one morning, about daybreak, wrought her way through the cage while I was asleep, instantly flew overboard, and perished in the Gulf of Mexico."

A stranger who visits the United States for the purpose of examining their natural productions, and passes through the woods in the month of May or June, will sometimes hear, as he traverses the borders of deep, retired, high-timbered hollows, an uncouth guttural sound, or note, resembling the syllables *kowe, kowe, kowe, kowe, kowe*, beginning slowly, but ending so rapidly, that the notes seem to run into each other, and *vice versa*: he will hear this frequently, without being able to discover the bird or animal from which it proceeds, as it is both shy and solitary, seeking always the thickest foliage for concealment. This is the yellow-billed cuckoo. From the imitative sound of its note, it is known in many parts by the name of the cow-bird; it is also called in Virginia, the rain-crow, being observed to be most clamorous immediately before rain. Unlike the European cuckoo, the bird now before us builds its own nest, hatches its own eggs, and rears its own young; and, in conjugal and parental affection, seems nowise behind any of its neighbours of the grove.

The woodpeckers constitute a large and interesting class of American birds. The ivory-billed woodpecker is a majestic and formidable species, which, in strength and magnitude, stands at the head of the whole class of woodpeckers hitherto discovered. He may be called the king or chief of his tribe; and nature seems to have designed him a distinguished characteristic in the superb carmine crest, and bill of polished ivory, with which she has ornamented him. His eye is brilliant and daring; and his whole frame admirably adapted for his mode of life, and method of procuring subsistence. His manners have also a dignity in them superior to the common herd of woodpeckers, to whom trees, shrubberies, orchards, rails, fence-posts, and old prostrate logs, are alike interesting in their humble and indefatigable search for prey; but

the royal hunter now before us scorns the humility of such situations, and seeks the most towering trees of the forest, seeming particularly attached to those prodigious cypress swamps, whose crowded giant sons stretch their bare and blasted or moss-hung arms midway to the skies. In these almost inaccessible recesses, amid ruinous piles of impending timber, his trumpet-like note and loud strokes resound through the solitary savage wilds, of which he seems the sole lord and inhabitant. Wherever he frequents he leaves numerous monuments of his industry behind him. We there see enormous pine-trees with cartloads of bark lying around their roots, and chips of the trunk itself in such quantities as to suggest the idea that half a dozen axe-men had been at work there for the whole morning. The body of the tree is also disfigured with such numerous and large excavations, that one can hardly conceive it possible for the whole to be the work of a woodpecker. With such strength, and an apparatus so powerful, what havoc might he not commit, if numerous, on the most useful of the forest trees; and yet, with all these appearances, and much of vulgar prejudice against him, it may fairly be questioned whether he is at all injurious, or rather, whether his exertions do not contribute most powerfully to the protection of the timber. Examine closely the tree where he has been at work, and you will soon perceive, that it is neither from motives of mischief nor amusement that he slices off the bark, or digs his way into the trunk. For the sound and healthy tree is the last object of his attention. The diseased, infested with insects, and hastening to putrefaction, are his favourites; there the deadly crawling enemy have formed a lodgment between the bark and tender wood, to drink up the very vital element of the tree. It is the ravages of these vermin which the intelligent proprietor of the forest deplures, as the sole perpetrators of the destruction of his timber. Would it be believed that the larvæ of an insect, or fly, no larger than a grain of rice, should silently, and in one season, destroy some thousand acres of pine trees, many of them from two to three feet in diameter, and a hundred and fifty feet high? Yet whoever passes along the high road from Georgetown to Charleston, in South Carolina, about twenty miles from the former place, can have striking and melancholy proofs of this fact; and in some places the whole woods, as far as you can see around you, are dead, stripped of the bark, their wintry-looking arms and bare trunks bleaching in the sun, and tumbling in ruins before every blast, presenting a frightful picture of desolation. And yet ignorance and prejudice, it seems, persist in directing their indignation against the bird now before us, the constant and mortal enemy of these very vermin, as if the hand that probed the wound to extract its cause, should be equally detested with that which inflicted it, or as if the thief-catcher should be confounded with the thief. "Until some effectual preventive or more complete mode of destruction can be devised against these insects and their larvæ," says Wilson, "I would humbly suggest the propriety of protecting, and receiving with proper feelings of gratitude

the services of this and the whole tribe of wood-peckers, letting the odium of guilt fall to its proper owners."

The same author furnishes us with the following account of an ivory-billed woodpecker which he shot. "Having wounded it slightly in the wing, on being caught it uttered a loudly reiterated, and most piteous note, exactly resembling the violent crying of a young child, which terrified my horse so as nearly to have cost me my life. It was distressing to hear it. I carried it with me in the chair, under cover, to Wilmington. In passing through the streets its affecting cries surprised every one within hearing, particularly the females, who hurried to the doors and windows with looks of alarm and anxiety. I drove on, and on arriving at the piazza of the hotel where I intended to put up, the landlord came forward, and a number of other persons who happened to be there, all equally alarmed at what they heard; and their concern was greatly increased by my asking whether he could furnish me with accommodations for myself and my baby. The man looked blank and foolish, while the others stared with still greater astonishment. After diverting myself for a minute or two at their expense, I drew my woodpecker from under the cover, and a general laugh took place. I took him up stairs, and locked him up in my room, while I went to see my horse taken care of. In less than an hour I returned, and, on opening the door, he set up the same distressing shout, which now appeared to proceed from grief that he had been discovered in his attempts at escape. He had mounted along the side of the window, nearly as high as the ceiling, a little below which he had begun to break through. The bed was covered with large pieces of plaster, the lath was exposed for at least fifteen inches square, and a hole, large enough to admit the fist, opened to the weather-boards; so that in less than another hour he would certainly have succeeded in making his way through. I now tied a string round his leg, and, fastening it to the table, again left him. I wished to preserve his life, and had gone off in search of suitable food for him. As I reascended the stairs, I heard him again hard at work, and, on entering, had the mortification to perceive that he had almost entirely ruined the mahogany table to which he was fastened, and on which he had wreaked his whole vengeance. While engaged in taking a drawing, he cut me severely in several places, and on the whole displayed such a noble and unconquerable spirit, that I was frequently tempted to restore him to his native woods. He lived with me nearly three days, but refused all sustenance, and I witnessed his death with regret." The ivory-billed woodpecker is seldom seen above Virginia; the pileated woodpecker, next in size, is the northern chief of his tribe.

There is perhaps no bird in North America more universally known than the red-headed woodpecker. His tricoloured plumage, red, white, and black, glossed with steel blue, is so striking, and characteristic, and his predatory habits in the orchards and corn-fields, added to his numbers and fondness for hovering along the fences, so

very notorious, that almost every child is acquainted with him. "In the immediate neighbourhood of our large cities," says Wilson, "where the old timber is chiefly cut down, he is not so frequently found; and yet, at this period, June 1808, I know of several of their nests within the boundaries of the city of Philadelphia. Towards the mountains, particularly in the vicinity of creeks and rivers, these birds are extremely abundant, especially in the latter end of summer. Wherever you travel in the interior at that season, you hear them screaming from the adjoining woods, rattling on the dead limbs of trees, or on the fences, where they are perpetually seen flitting from stake to stake, on the roadside before you. Wherever there is a tree of the wild cherry covered with ripe fruit, there you see them busy among the branches; and in passing orchards, you may easily know where to find the earliest, sweetest apples, by observing those trees, on or near which the red-headed woodpecker is skulking, for he is so excellent a connoisseur in fruit, that wherever an apple or pear tree is found broached by him, it is sure to be among the ripest and best flavoured: when alarmed, he seizes a capital one by striking his open bill deep into it, and bears it off to the woods." When the Indian corn is in its rich, succulent, milky state, he attacks it with great eagerness, opening a passage through the numerous folds of the husk, and feeding on it with voracity. His favourite retreats are among the girdled, or deadened timber, so common in corn-fields in the back settlements, whence he sallies out to make his depredations. He is fond of the ripe berries of the sour gum, and pays pretty regular visits to the cherry trees when loaded with fruit; and towards autumn he often approaches the barn or farm house, and raps on the shingles and weather boards. He is of a gay and frolicsome disposition; and half a dozen of the fraternity are frequently seen diving and vociferating around the high dead limbs of some large tree, pursuing and playing with each other, and amusing the passengers with their gambols.

On account of the vicious traits in their character, a war of extermination has been waged against these birds, and even the legislatures of some provinces in former times, offered premiums to the amount of twopence per head for their destruction; yet Wilson, whose generous and simple-hearted advocacy for the feathered race forms one of the principal charms of his book, thus reasonably pleads their cause:—"Though this bird occasionally regales himself on fruit, yet his natural and most usual food is insects, particularly those numerous and destructive species that penetrate the bark and body of the tree to deposit their eggs and larvæ, the latter of which are well known to make immense havoc. He searches for them with a dexterity and intelligence, I may safely say, more than human; he perceives, by the exterior appearance of the bark where they lurk below; when he is dubious, he rattles vehemently on the outside with his bill, and his acute ear distinguishes the terrified vermin shrinking within to their inmost retreats, where

his pointed and barbed tongue soon reaches them. The masses of bugs, caterpillars, and other larvæ, which I have taken from the stomachs of these birds, have often surprised me. These larvæ, it should be remembered, feed not only on the buds, leaves, and blossoms, but on the very vegetable life of the tree, the alburnum, or newly-forming bark and wood; the consequence is, that whole branches and whole trees decay under the silent ravages of these destructive vermin; witness the late destruction of many hundred acres of pine trees, in the north-eastern parts of South Carolina, and the thousands of peach trees that yearly decay from the same cause. Will any one say, that taking half a dozen or half a hundred apples from a tree is equally ruinous with cutting it down? Or, that the services of a useful animal should not be rewarded with a small portion of that which it has contributed to preserve? We are told, in the benevolent language of the scriptures, not to muzzle the mouth of the ox that treadeth out the corn; and why should not the same generous liberality be extended to this useful family of birds, which forms so powerful a phalanx against the inroads of many millions of destructive vermin?"

The kingfisher is a general inhabitant of the banks and shores of all the fresh-water rivers, from Hudson's Bay to Mexico, and is the only species of its tribe found within the United States. It is as universally known as its elegant little brother, the common kingfisher of Europe, is in Britain. Like the love-lorn swains of whom poets tell us, he delights in murmuring streams and falling waters; not, however, merely that they may sooth his ear, but for a gratification somewhat more substantial. Amidst the roar of the cataract, or over the foam of a torrent, he sits perched upon an overhanging bough, glancing his piercing eye in every direction below for his scaly prey, which, with a sudden circular plunge, he sweeps from their native element, and swallows in an instant. His voice, which is not unlike the twirling of a watchman's rattle, is naturally loud, harsh, and abrupt; but it is softened by the sound of the brawling streams and cascades among which he generally rambles. He courses along the windings of the brook or river at a small height above the surface, sometimes suspending himself by the rapid action of his wings, like certain species of hawks, ready to pounce on the fry below; now and then settling on an old dead overhanging limb to reconnoitre. Mill-dams are particularly visited by this feathered fisher; and the sound of his pipe is as well known to the miller, as the rattling of his own hopper. Rapid streams with high perpendicular banks, particularly if they be of a hard clayey or sandy nature, are also favourite places of resort for this bird; not only because in such places the small fish are more exposed to view, but because those steep and dry banks are the chosen situations for his nest.

Among the most beautiful of the American birds is the oriole. Almost the whole genus of orioles belong to America. With few exceptions, they build pensile nests; but few of them equal the Baltimore in the construction of these receptacles

for their young, and in giving them convenience, warmth, and security. For these purposes he generally fixes on the high bending extremities of the branches, fastening strong strings of hemp or flax round two forked twigs, corresponding to the intended width of the nest; with the same materials, mixed with quantities of loose tow, he interweaves or fabricates a strong firm kind of cloth, not unlike the substance of a hat in its raw state, forming it into a pouch of six or seven inches in depth, lining it substantially with various soft substances, well interwoven with the outward netting, and finishing with a layer of horse hair; the whole being shaded from the sun and rain by a natural pent-house, or canopy of leaves. The Baltimore inhabits North America from Canada to Mexico, and is even found as far south as Brazil. Since the streets of the American cities have been planted with that beautiful and stately tree the Lombardy poplar, these birds are constant visitors during the early part of summer; and, amidst the noise and tumult of coaches, drays, wheelbarrows, and the din of the multitude, they are heard chanting "their native wood notes wild," sometimes, too, within a few yards of an oyster-man, who stands bellowing, with the lungs of a Stentor, under the shade of the same tree; so much will habit reconcile even birds to the roar of the city, and to sounds and noises, which, in other circumstances, would put a whole grove of them to flight. The orchard oriole, though partly a dependent on the industry of the farmer, is no sneaking pilferer, but an open, and truly beneficent friend. To all those countless multitudes of destructive bugs and caterpillars that infest the fruit trees in spring and summer, preying on the leaves, blossoms, and embryo of the fruit, he is a deadly enemy; devouring them wherever he can find them, and destroying, on an average, some hundreds of them every day, without offering the slightest injury to the fruit, however much it may stand in his way. "I have witnessed instances," says Wilson, "where the entrance to his nest was more than half closed up by a cluster of apples, which he could have easily demolished in half a minute; but, as if holding the property of his patron sacred, or considering it as a natural bulwark to his own, he slid out and in with the greatest gentleness and caution." Nor is the gaiety of his song one of his least recommendations. Being an exceedingly active, sprightly, and restless bird, he is on the ground—on the trees—flying and and carolling in his hurried manner, in almost one and the same instant. His notes are shrill and lively, but uttered with such rapidity and seeming confusion, that the ear is unable to follow them distinctly; between these, he has a single note, which is agreeable and interesting. Wherever he is protected, he shews his confidence and gratitude by his numbers and familiarity. The orioles are birds of passage, spending the summer only in the northern parts of the United States.

The red-winged starlings, though generally migratory in the states north of Maryland, are found during winter in immense flocks, sometimes associated with the purple grakles, and often by themselves, through the lower parts of Virginia, both Carolinas,

Georgia, and Louisiana, particularly near the sea coast, and in the vicinity of large rice and corn fields. "In the months of January and February," says the writer above quoted, "while passing through the former of these countries, I was frequently entertained with the aerial evolutions of these great bodies of starlings. Sometimes they appeared driving about like an enormous black cloud carried before the wind, varying its shape every moment; sometimes suddenly rising from the fields around me with a noise like thunder; while the glittering of innumerable wings of the brightest vermilion amid the black cloud they formed, produced on these occasions a very striking and splendid effect. Then descending like a torrent, and covering the branches of some detached grove or clump of trees, the whole congregated multitude commenced one general concert or chorus, which I have plainly distinguished at the distance of more than two miles; and which, when listened to at the distance of about a quarter of a mile, with a slight breeze of wind to swell and soften the flow of its cadences, was to me grand, and even sublime." The whole season of winter, which, with most birds, is passed in struggling to sustain life in silent melancholy, is with the red-wings one continued carnival. The profuse gleanings of the old rice, corn, and buckwheat fields, supply them with abundant food, at once ready and nutritious; and the intermediate time is spent either in aerial manœuvres, or in grand vocal performances, as if solicitous to supply the absence of all the tuneful summer tribes, and to cheer the dejected face of nature with their whole combined powers of harmony.

In summer these birds are very mischievous. Having migrated to the northward in the spring, before the beginning of September the flocks have become numerous and formidable; and the young ears of maize, or Indian corn, being then in their soft succulent, milky state, present a temptation that cannot be resisted. Reinforced by numerous and daily flocks from all parts of the interior, they pour down on the low countries in prodigious multitudes. Here they are seen, like vast clouds, wheeling and driving over the meadows and devoted corn fields, darkening the air with their numbers. Then commences the work of destruction on the corn, the husks of which, though composed of numerous envelopments of closely wrapt leaves, are soon completely or partially torn off, while from all quarters myriads continue to pour down like a tempest, blackening half an acre at a time: if not disturbed, they repeat their depredations till little remains but the cob and the shrivelled skins of the grain; and what little is left of the tender ear, being exposed to the rains and weather, is generally much injured. All the attacks and havoc made at this time among them by the gun and by the hawks, several species of which are their constant attendants, have little effect on the remainder. When the hawks make a sweep among them, they suddenly open on all sides, but rarely in time to disappoint them of their victims; and, though repeatedly fired at with mortal effect, they only remove from one field to an adjoining one, or to another quarter of the same enclosure. From dawn to nearly sunset, this

open and daring devastation is carried on under the eye of the proprietor; and a farmer, who has any considerable extent of corn, would require half a dozen men at least, with guns, to guard it; and even then, all their vigilance and activity would not prevent a good tithe of it from becoming the prey of the blackbirds. The Indians, who usually plant their corn in a common field, keep all the young boys of the village all day patrolling round and among it; and each being furnished with a bow and arrows, with which they are very expert, they generally contrive to destroy great numbers of them. For this bird, though the notorious corn-thief of the United States, our humane author again puts in a plea, on the ground of the insects and larvæ destroyed by them, which he calculates at no less than sixteen thousand two hundred millions in the space of four months. A similar character and apology may be attached to the rice-bunting and the purple grackle.

The cow-bunting, or cow-pen finch, like the cuckoo of Europe, has the habit of dropping her eggs into the nests of other birds. The following account is given by Dr. Potter, of Baltimore:—"I once had an opportunity of witnessing a scene of this sort, which I cannot forbear to relate. Seeing a female prying into a bunch of bushes in search of a nest, I determined to see the result, if practicable; and, knowing how easily they are disconcerted by the near approach of man, I mounted my horse, and proceeded slowly, sometimes seeing and sometimes losing sight of her, till I had travelled nearly two miles along the margin of a creek. She entered every thick place, prying with the strictest scrutiny into places where the small birds usually build, and at last darted suddenly into a thick copse of alders and briers, where she remained five or six minutes, when she returned, soaring above the under-wood, and returned to the company she had left feeding in the field. Upon entering the covert, I found the nest of a yellow-throat, with an egg of each. The deportment of the yellow-throat on this occasion is not to be omitted. She returned while I waited near the spot, and darted into her nest, but quitted it immediately, and perched upon a bough near the place, remained a minute or two, and entered it again, returned, and disappeared. In ten minutes she returned with the male. They chattered with great agitation for half an hour, seeming to participate in the affront, and then left the place. I believe all the birds thus intruded on manifest more or less concern at finding the egg of a stranger in their own nests. Among these the sparrow is particularly punctilious; for she sometimes chirps her complaints for a day or two, and often deserts the premises altogether, even after she has deposited one or more eggs." The most remarkable circumstance connected with this habit is, that the young of the cow-bird is hatched before those of the proprietor of the nest, whose eggs, in fact, are never hatched at all, but pushed out of the nest, and in such a manner that no person can yet ascertain how it is done, or what becomes of them.

The raven is a general inhabitant of the United States, but is more common in the interior. On the lakes, and particularly in the neighbourhood of the Falls of the Niagara River, they are numerous; and it is a remarkable fact, that where they abound, the common crow seldom makes its appearance. The crow is a constant attendant on agriculture, and a general inhabitant of the cultivated parts of North America. On an island in the Delaware is a very celebrated crow-roost. It is there known by the name of the Pea Patch, and is a low flat alluvial spot, of a few acres, elevated but a little above high-water mark, and covered with a thick growth of reeds; and it appears to be the grand rendezvous, or head-quarters, of the greater part of the crows within forty or fifty miles of the spot. It is entirely destitute of trees, the crows alighting and nestling among the reeds, which by these means are broken down and matted together. The noise created by them, both in their evening assembly and their reascension in the morning, and the depredations they commit in the immediate neighbourhood of this great resort, are almost incredible. The strong attachment of the crows to this spot may be illustrated by the following circumstance:—Some years ago, a sudden and violent north-east storm came on during the night, and the tide, rising to an uncommon height, inundated the whole island. The darkness of the night, the suddenness and violence of the storm, and the incessant torrents of rain that fell, it is supposed, so intimidated the crows, that they did not attempt to escape, and almost all perished. Thousands of them were next day seen floating in the river; and the wind, shifting to the north-west, drove their dead bodies to the Jersey side, where for miles they blackened the whole shore. This disaster, however, seems long ago to have been repaired; for they now congregate on the Pea Patch in as immense multitudes as ever. One American species, the fish-crow, is a roving inhabitant of the sea-coasts, ponds, and river-shores.

The magpie is much better known in Europe than in America, where it has not been long discovered; although it is now found to inhabit a wide extent of territory, and in great numbers. The blue jay is peculiar to North America, and is distinguished as a kind of beau among the feathered tenants of the woods, by the brilliancy of his dress; and, like most other coxcombs, makes himself still more conspicuous by his loquacity, and the oddness of his tones and gestures. It is an almost universal inhabitant of the woods, frequenting the thickest settlements as well as the deepest recesses of the forest, where his squalling voice often alarms the deer, to the disappointment and mortification of the hunter. In the charming season of spring, when every thicket pours forth harmony, the part performed by the jay always catches the ear. He appears to be among his fellow-musicians what the trumpeter is in a band, some of his notes having no distant resemblance to the tones of that instrument. These he has the faculty of changing, through a great variety of modulations, according to the particular humour in which he

happens to be. When disposed for ridicule, there is scarcely a bird whose peculiarities of song he cannot imitate. When engaged in the blandishments of love, his notes resemble the soft chatterings of a duck, and while he nestles among the thick branches of the cedar, are scarcely heard at a few paces distance; but he no sooner discovers your approach than he sets up a sudden and vehement outcry, flying off, and screaming with all his might, as if he called the whole feathered tribes of the neighbourhood to witness some outrageous usage he had received. When he hops undisturbed among the high branches of the oak and hickory, his notes become soft and musical; but his calls of the female a stranger would readily mistake for the repeated squeakings of an ungreased wheelbarrow. All these he accompanies with various nods, jerks, and other gesticulations, for which the whole tribe of jays are remarkable. They are among the most useful agents in the economy of nature for disseminating forest trees, and other ruciferous and hard-seeded vegetables on which they feed. In their autumnal foraging they drop abundance of seed; and they alone are capable, in a few years' time, of replanting all the cleared lands.

The United States present to us specimens of a singular genus of birds, formed to subsist on the superabundance of nocturnal insects, and surprisingly fitted for their mode of life. Three species only of them are found within the United States; the chuck-will's widow, the whip-poor-will, and the night-hawk. The first of these is confined to those states lying south of Maryland; the other two are found generally over the Union. The chuck-will's-widow and the whip-poor-will, have received these singular names from the similarity of their call to these words. The night-hawk is a bird of strong and vigorous flight, and of large volume of wing. It often visits the city, darting and squeaking over the streets at a great height, diving perpendicularly with a hollow sound; they are also seen sitting on chimney tops in some of the most busy parts of the city, occasionally uttering their common note. Their favourite time for flight is from two hours before sunset until dusk. At such times they seem all vivacity, darting about in the air in every direction, making frequent short sudden turnings, as if busily engaged in catching insects. Near the seashore, in the vicinity of extensive salt marshes, they are very numerous, skimming over the meadows, in the manner of swallows, until it is so dark that the eye can no longer follow them. The whip-poor-will is a singular and very celebrated species, universally noted over the greater part of the United States for the loud reiterations of his favourite call in spring. The notes of this solitary bird, from the ideas which are naturally associated with them, seem like the voice of an old friend, and are listened to by almost all with great interest. At first they issue from some retired part of the woods, the glen, or mountain; in a few evenings, perhaps, we hear them from the adjoining coppice, the garden fence, the road before the door, and even from the roof of the dwelling-house, long after the family have retired to

rest. He is now a regular acquaintance. Every morning and evening his shrill and rapid repetitions are heard from the adjoining woods, and when two or more are calling out at the same time, as is often the case in the pairing season, and at no great distance from each other, the noise, mingling with the echoes from the mountains, is really surprising. Strangers, in parts of the country where these birds are numerous, find it almost impossible for some time to sleep; while to those long acquainted with them, the sound often serves as a lullaby.

The American chimney-swallows, of a species peculiar to that continent, arrive in the spring, and disperse themselves over the whole country wherever there are vacant chimneys in summer, sufficiently high and convenient for their accommodation. In no other situation are they observed at present to build. This circumstance naturally suggests the query, Where did these birds construct their nests before the arrival of Europeans in America, when there were no such places for their accommodation? Probably in the same situations in which they still continue to build in the remote regions of the western forests, where European improvements of this kind are scarcely to be found, namely, in the hollow of a tree, which, in some cases, has the nearest resemblance to their present choice. One of the first settlers in the state of Kentucky informs us, that he cut down a large hollow beech tree, which contained forty or fifty nests of the chimney-swallow, most of which, by the fall of the tree, or by the weather, were lying at the bottom of the hollow; but sufficient fragments remained adhering to the sides of the tree to enable him to number them. They appeared, he said, to be of many years' standing. The present site which they have chosen must, however, hold out many more advantages than the former, since we see that, in the whole thickly-settled parts of the United States, these birds have uniformly adopted this new convenience, not a single pair being observed to prefer the woods. Security from birds of prey and other animals—from storms that frequently overthrow the timber, and the numerous ready conveniences which these new situations afford, are doubtless some of the advantages. In towns it is matter of curiosity to observe that they frequently select the court-house chimney for their general place of rendezvous, as being usually more central, and less liable to interruption during the night. The summer residence of the purple martin is universally among the habitations of man; who, having no interest in his destruction, and deriving considerable advantage, as well as amusement, from his company, is generally his friend and protector. Wherever he comes, he finds some hospitable retreat fitted up for his accommodation. Even the solitary Indian seems to have a particular respect for this bird. The Choctaws and Chickasaws cut off all the top branches from a sapling near their cabins, leaving the prongs a foot or two in length, on each of which they hang a gourd, or calabash, properly hollowed out for their convenience; and on the banks of the Mississippi, the negroes stick up long canes, with

the same species of apartment fixed to their tops, in which the martins regularly breed. The barn swallow is of particularly swift and incessant flight, and Wilson gives us the following computation of the distance he may be supposed to traverse. "Let us suppose that this little bird flies, in his usual way, at the rate of one mile in a minute, which, from the many experiments I have made, I believe to be within the truth; and that he is so engaged for ten hours every day; and further, that this active life is extended to ten years, (many of our small birds being known to live much longer, even in a state of domestication,) the amount of all these, allowing three hundred and sixty-five days to a year, would give us two million one hundred and ninety thousand miles; upwards of eighty-seven times the circumference of the globe."

Of the numerous family of flycatchers, the tyrant flycatcher, or king bird, is the principal. The name king as well as tyrant has been bestowed on this bird for its extraordinary behaviour, and the authority it assumes over all others, during the time of breeding. At that season his extreme affection for his mate, and for his nest and young, makes him suspicious of every bird that happens to pass near his residence, so that he attacks without discrimination every intruder; all his turbulence, however, vanishes as soon as his young are able to shift for themselves; and he is then as mild and peaceable as any other bird. But he has a worse habit than this; one much more obnoxious to the nusbandman, and often fatal to himself. He loves not the honey, but the bees; and, it is confessed, is frequently on the look-out for these little industrious insects. He lants himself on a post of the fence, or on a small tree in the garden, not far from the hives, and from thence sallies forth on them as they pass and repass, making great havoc among them. His shrill twitter, so near to the house, gives intimation to the farmer of what is going on, and the gun soon closes his career: yet, the death of every king bird is an actual loss to the farmer, by multiplying the numbers of destructive insects, and encouraging the depredations of crows, hawks, and eagles, who avoid as much as possible his immediate vicinity. The yellow-breasted chat, which belongs to this tribe, has a singular habit of concealed vociferation. When he has once taken up his residence in a favourite situation, which is almost always in close thickets of hazel, brambles, vines, and thick underwood, he becomes very jealous of his possessions, and seems offended at the least intrusion; scolding all passengers as soon as they come within view, in a great variety of odd and uncouth monosyllables, which it is difficult to describe, but which may be readily imitated, so as to deceive the bird himself, and draw him after you for half a quarter of a mile at a time. On these occasions, his responses are constant and rapid, strongly expressive of anger and anxiety; and while the bird itself remains unseen, the voice shifts from place to place, among the bushes, as if it proceeded from a spirit. All his notes are uttered with great vehemence, in such different keys, and with

such peculiar modulations of voice, as sometimes to seem at a considerable distance, and instantly as if just beside you; now on this hand, now on that; so that, from these manœuvres of ventriloquism, you are utterly at a loss to ascertain from what particular spot or quarter they proceed.

Among the many novelties which the discovery of this part of the western continent first brought into notice, we may reckon the mocking-bird, which is peculiar to the new world, and inhabits a very considerable extent of both North and South America; having been traced from the states of New England to Brazil. The plumage of the mocking-bird, though none of the homeliest, has nothing gaudy or brilliant in it; but his figure is well proportioned, and even handsome. The ease, elegance, and rapidity of his movements, the animation of his eye, and the intelligence he displays in listening and laying up lessons from almost every species of the feathered creation within his hearing, are preeminent. To these qualities may be added that of a voice full, strong, and musical, and capable of almost every modulation, from the clear mellow tones of the wood-thrush, to the savage scream of the bald eagle. In measure and accent, he faithfully follows his originals; in force and sweetness of expression, he greatly improves upon them. In his native groves, mounted on the top of a tall bush, or half-grown tree, in the dawn of dewy morning, while the woods are already vocal with a multitude of warblers, his admirable song rises preeminent over every competitor. The ear listens to his music alone, to which that of all the others seems a mere accompaniment. Neither is this strain altogether imitative. His own native notes, which are easily distinguishable by such as are well acquainted with those of our various song-birds, are bold and full, and varied seemingly beyond all limits. His expanded wings and tail, glistening with white, and the buoyant gaiety of his action, arresting the eye, as his song most irresistibly does the ear, he sweeps round with enthusiastic ecstasy, and mounts or descends as his song swells or dies away; and, as Mr. Bartram has beautifully expressed it, "he bounds aloft with the celerity of an arrow, as if to recover or recal his very soul, expired in the last elevated strain." While thus exerting himself, a bystander destitute of sight would suppose that the whole feathered tribes had assembled together, on a trial of skill, each striving to produce his utmost effect; so perfect are his imitations. He many times deceives the sportsman, and sends him in search of birds that perhaps are not within miles of him, but whose notes he exactly imitates: even birds themselves are frequently imposed on by this admirable mimic, and are decoyed by the fancied calls of their mates, or dive, with precipitation, into the depth of thickets, at the scream of what they suppose to be the sparrow-hawk. The mocking bird loses little of the power and energy of his song by confinement. The only bird in the world worthy of being compared with him, is the European nightingale.

In his account of the cat-bird, a common and well known species, Wilson says,—“ In passing through the woods in summer, I have sometimes amused myself with imitating the violent chirping or squeaking of young birds, in order to observe what different species were around me,—for such sounds, at such a season, in the woods, are no less alarming to the feathered tenants of the bushes, than the cry of fire or murder in the streets is to the inhabitants of a large and populous city. On such occasions of alarm and consternation, the cat-bird is the first to make his appearance, not singly, but sometimes half a dozen at a time, flying from different quarters to the spot. At this time, those who are disposed to play with his feelings may almost throw him into fits, his emotion and agitation are so great, at the distressful cries of what he supposes to be his suffering young. Other birds are variously affected; but none show symptoms of such extreme suffering. He hurries backwards and forwards, with hanging wings and open mouth, calling out louder and faster, and actually screaming with distress, till he appears hoarse with his exertions. He attempts no offensive means; but he bewails—he implores—in the most pathetic terms with which nature has supplied him, and with an agony of feeling which is truly affecting. Every feathered neighbour within hearing hastens to the place, to learn the cause of the alarm, peeping about with looks of consternation and sympathy.”

The robins are so fond of gum-berries, that wherever there is one of these trees covered with fruit, and flocks of robins in the neighbourhood, the sportsman need only take his stand near it, load, take aim, and fire; one flock succeeding another, with little interruption, almost the whole day. When berries fail, they disperse themselves over the fields, and along the fences, in search of worms and other insects. Sometimes they disappear for a week or two, and return again in immense numbers; the cities then pour out their sportsmen by scores, and the markets are plentifully supplied with them at a cheap rate.

Among the numerous warblers of the United States, we can only further mention the blue bird. He is of pleasing manners and a sociable disposition. As one of the first messengers of spring, he bears his own recommendation always along with him, and meets with a hearty welcome from every body. In his motions and general character, he has a great resemblance to the robin redbreast of Britain; and, had he the brown olive of that bird, instead of his own blue, could scarcely be distinguished from him. Like him, he is known to almost every child; and shows as much confidence in man by associating with him in summer, as the other by his familiarity in winter. Few farmers neglect to provide for him, in some suitable place, a snug little summer-house, ready fitted and rent free; for which he more than repays them by the cheerfulness of his song, and the multitude of injurious insects which he daily destroys.

Several species of wren are common. The house wren, a familiar bird, is marked by a strong antipathy to cats; for, having frequent occasion to glean among the

currant bushes, and other shrubs in the garden, those lurking enemies of the feathered race often prove fatal to him. "A box fixed up in the window of the room where I slept," says Wilson, "was taken possession of by a pair of wrens. Already the nest was built and two eggs laid, when one day, the window being open as well as the room-door, the female wren, venturing too far into the room to reconnoitre, was sprung upon by grimalkin, who had planted herself there for the purpose; and, before relief could be given, she was destroyed. Curious to see how the survivor would demean himself, I watched him carefully for several days. At first he sang with great vivacity for an hour or so, but, becoming uneasy, went off for half an hour. On his return he chanted again as before, went to the top of the house, the stable, and the weeping willow, that she might hear him; but seeing no appearance of her, he returned once more, visited the nest, ventured cautiously into the window, gazed about with suspicious looks, his voice sinking to a low melancholy note as he stretched his little neck about in every direction. Returning to the box, he seemed for some minutes at a loss what to do, and soon after went off, as I thought, altogether, for I saw him no more that day. Towards the afternoon of the second day he again made his appearance, accompanied with a new female, who seemed exceedingly timorous and shy, and who only after great hesitation entered the box; at this moment the little widower or bridegroom seemed as if he would warble out his very life with ecstasy of joy. After remaining about half a minute in, they both flew off, but returned in a few minutes, and instantly began to carry out the eggs, feathers, and some of the sticks, supplying the place of the two latter with materials of the same sort; and they ultimately succeeded in raising a brood of seven young, all of which escaped in safety."

The brown creepers are distributed over the whole United States; but are most numerous in the western and northern states, and particularly so in the depth of the forests, and in tracts of large-timbered woods, where they usually breed; visiting the thicker-settled parts of the country in fall and winter. The white-breasted nuthatch is common almost everywhere in the woods of North America, and may be known at a distance by the notes *quank, quank*, frequently repeated as he moves upward and downward, in spiral circles, around the body and larger branches of the tree, probing behind the thin scaly bark of the white oak, and shelling off considerable pieces of it, in his search after spiders, ants, insects, and their larvæ. The red-bellied black-capped nuthatch is particularly fond of the seeds of pine trees. You may traverse many thousand acres of oak, hickory, and chesnut woods, during winter, without meeting with a single individual; but no sooner do you enter among the pines, than, if the air be still, you have only to listen for a few moments, and their note will direct you where to find them. The brown-headed nuthatch is chiefly an inhabitant of Virginia and the southern states, and seems particularly fond of pine trees.

The humming-bird is migratory through the whole of the United States, excepting Florida. As it passes on to the northward as far as the interior of Canada, where it is seen in great numbers, wonder is excited how so feebly constructed and delicate a little creature can make its way over such extensive regions of lakes and forests, among so many enemies, all its superiors in strength and magnitude; but its very minuteness, the rapidity of its flight, which almost eludes the eye, and that admirable instinct, reason, or whatever else it may be called, and daring courage, which heaven has implanted in its bosom, are its protectors. The humming-bird is extremely fond of tubular flowers. When arrived before a thicket of trumpet-flowers that are full-blown, he poises, or suspends himself on wing, for the space of two or three seconds, so steadily, that his wings become invisible, or only like a mist, and you can plainly distinguish the pupil of his eye looking round with great quickness and circumspection; the glossy golden green of his back and the fire of his throat, glistening in the sun, he forms altogether a most interesting appearance. When he alights, which is frequently, he always prefers the small dead twigs of a tree or bush, where he dresses and arranges his plumage with great dexterity. His only note is a single chirp, not louder than that of a small cricket or grasshopper, generally uttered while passing from flower to flower, or when engaged in fights with his fellows: for, when two males meet at the same bush or flower, a battle instantly takes place; and the combatants ascend in the air, chirping, darting, and circling round each other, till the eye is no longer able to follow them. The conqueror, however, generally returns to the place, to reap the fruits of his victory. He is one of those few birds that are universally beloved; and, amidst the sweet dewy serenity of a summer's morning, his appearance among the arbours of honeysuckles, and beds of flowers, is truly interesting.

The tanagers are gaudy birds, who annually visit the republic from the torrid regions of the south. The scarlet tanager is, perhaps, the most showy. He spreads himself over the United States, and is found even in Canada. He rarely approaches the habitations of man, unless, perhaps, in the orchard, where he sometimes builds; or in the cherry trees, in search of fruit: the depth of the woods is his favourite abode. Among all the birds that inhabit our woods, there is none that strikes the eye of a stranger, or even a native, with so much brilliancy as this. Seen among the green leaves, with the light falling strongly on his plumage, he really appears beautiful. Another species, the summer red-bird, delights in a flat sandy country, covered with wood and interspersed with pine trees; and is, consequently, more numerous towards the shores of the Atlantic than in the interior. In both Carolinas, and in Georgia and Florida, they are in great plenty.

Among the numerous birds of the finch family we briefly notice a few. The indigo-bird is another of the rich-plumaged tribes, which migrate from the south.

It is numerous in all the settled parts of the middle and eastern states; in the Carolinas and Georgia it is also abundant. Its favourite haunts are about gardens, fields of deep clover, the borders of woods, and roadsides, where it is frequently seen perched on the fences. In its manners, it is extremely active and neat, and a vigorous and pretty good songster. In some lights, his plumage appears of a rich sky blue, and in others of a vivid verdigris green; so that the same bird, in passing from one place to another before your eyes, seems to undergo a total change of colour. The painted bunting is one of the most numerous of the little summer birds of Lower Louisiana, where it is universally known among the French inhabitants, and called by them "le pape," and by the Americans "the nonpareil." Its gay dress and docility of manners have procured it many admirers. The low countries of the southern states, in the vicinity of the sea, and along the borders of the large rivers, particularly among the rice plantations, are the favourite haunts of this elegant little bird. It is very commonly domesticated in the houses of the French inhabitants of New Orleans, appearing to be the most common cage bird they have. The negroes often bring them to market for sale. The cardinal grosbeak is one of the most common cage birds, and is very generally known, not only in North America, but even in Europe, numbers of them having been carried over both to France and England, in which last country they are usually called "Virginia nightingales." To this name Dr. Latham observes they are fully entitled, from the clearness and variety of their notes, which, both in a wild and domestic state, are very various and musical; many of them resemble the high notes of a fife, and are nearly as loud. The sprightly figure and gaudy plumage of the red-bird, his vivacity, strength of voice, and actual variety of note, and the little expense with which he is kept, will always make him a favourite. This species, like the mocking-bird, is more numerous to the east of the great range of the Apalachian mountains, and is found from New England to Carthage. Through the lower parts of the southern states, in the neighbourhood of settlements, they are numerous; their clear and lively notes, in the months of January and February, being almost the only music of the season. Along the roadsides and fences they are found hovering in half dozens together, associated with snow birds, and various kinds of sparrows. The crossbill is a regular inhabitant of almost all the pine forests situated north of 40°, from the beginning of September to the middle of April.

Respecting the melody of the transatlantic birds generally, Wilson makes the following observations:—"The opinion which so generally prevails in England, that the music of the groves and woods of America is far inferior to that of Europe, I, who have a thousand times listened to both, cannot admit to be correct. We cannot with fairness draw a comparison between the depth of the forest in America, and the cultivated fields of England; because it is a well-known fact, that singing

birds seldom frequent the former in any country. But let the latter places be compared with the like situations in the United States, and the superiority of song, I am fully persuaded, would justly belong to the western continent. The few of our song-birds that have visited Europe extort admiration from the best judges. 'The notes of the cardinal grosbeak,' says Latham, 'are almost equal to those of the nightingale.' Yet these notes, clear and excellent as they are, are far inferior to those of the wood thrush; and even to those of the brown thrush, or thrasher. Our inimitable mocking-bird is also acknowledged, by themselves, to be fully equal to the song of the nightingale in its whole compass. Yet these are not one-tenth of the number of our singing birds. Could these people be transported to the borders of our woods and settlements in the month of May, about half an hour before sunrise, such a ravishing concert would greet their ear as they have no conception of."

The American crossbill is a regular inhabitant of almost all the pine forests situated north of 40°, from the beginning of September till the middle of April. They then appear in large flocks, feeding on the seeds of the hemlock and white pine, have a loud, sharp, and not unmusical note, chatter as they fly, alight, during the prevalence of deep snows, before the door of the hunter, and around the house, picking off the clay with which the logs are plastered, and searching in corners where any substance of a saline quality has been thrown. At such times they are so tame as only to settle on the roof of the cabin when disturbed, and in a moment afterwards descend to feed as before. They are then easily caught in traps, and will frequently permit a person to approach so near as to knock them down with a stick. On first glancing at the bill of this extraordinary bird, one is apt to pronounce it deformed and monstrous; but on attentively observing the use to which it is applied by the owner, and the dexterity with which he detaches the seeds of the pine tree from the cone and from the husks that enclose them, we are obliged to confess on this, as on many other occasions where we have judged too hastily of the operations of nature, that no other conformation could have been so excellently adapted to the purpose.

The turtle dove is a general inhabitant, in summer, of the United States, from Canada to Florida, and from the sea-coast to the Mississippi, and far to the westward. This is a favourite bird with all those who love to wander among the woods in spring, and listen to their varied harmony. They there hear many a singular and sprightly performer; but none so mournful as this. The hopeless woe of settled sorrow swelling the heart of female innocence itself, could not assume tones more sad, or more tender and affecting. Its notes are four: the first is somewhat the highest and preparatory, seeming to be uttered with an inspiration of the breath, as if the afflicted creature was just recovering its voice from the last convulsive sobs of distress; this is followed by three long, deep, and mournful moanings, which no person of sensibility can listen to without sympathy. There is, however, nothing

of real distress in all this. The bird who utters it wantons by the side of his beloved partner, or invites her by his call to some favourite, retired, and shady retreat. It is the voice of love, of faithful connubial affection, for which the whole family of doves are so celebrated; and, among them all, none more deservedly so than the species now before us.—The wild pigeon of the United States inhabits a wide and extensive region on this side of the Chippewayan Mountains. The most remarkable characteristic of these birds is their associating together, both in their migrations and during the period of incubation, in such prodigious numbers as almost to surpass belief, and certainly to have no parallel among any other of the feathered tribes on the face of the earth, with which naturalists are acquainted. Their roosting-places are always in the woods, and sometimes occupy a large extent of forest. When they have frequented one of these places for some time, the ground is covered to the depth of several inches with their dung; all the tender grass and underwood is destroyed; the surface is strewn with large limbs of trees, broken down by the weight of the birds clustering one above another; and the trees themselves, for thousands of acres, killed as completely as if girdled with an axe. The marks of this desolation remain for many years on the spot; and numerous places could be pointed out, where, for several years afterwards, scarcely a single vegetable made its appearance. When these roosts are first discovered, the inhabitants from considerable distances visit them in the night, with guns, clubs, long poles, pots of sulphur, and various other engines of destruction; and in a few hours they fill many sacks, and load their horses with the birds. The breeding-places are of greater extent than the woods. In the western countries they are generally in beech woods, and often extend nearly in a straight line across the country for a great way. Not far from Shelbyville, in the State of Kentucky, about five years ago, there was one of these breeding-places, which was several miles in breadth, and upwards of forty miles in length. In this tract, almost every tree was furnished with nests, wherever the branches could accommodate them. The pigeons made their first appearance there about the 10th of April, and left it altogether, with their young, before the 25th of May. As soon as the young were fully grown, and before they left the nests, numerous parties of the inhabitants, from all parts of the adjacent country, came with waggons, axes, beds, cooking-utensils, many of them accompanied by the greater part of their families, and encamped for several days at this immense nursery. "Several of them informed me," says Wilson, "that the noise in the woods was so great as to terrify their horses; and that it was difficult for one person to hear another speak, without bawling in his ear. The ground was strewn with broken limbs of trees, eggs, and young squab pigeons, which had been precipitated from above, and on which herds of hogs were fattening. Hawks, buzzards, and eagles, were sailing about in great numbers, and seizing the squabs from their nests

at pleasure; while, from twenty feet upwards to the tops of the trees, the view through the woods presented a perpetual tumult of crowding and fluttering multitudes of pigeons, their wings roaring like thunder, mingled with the frequent crash of falling timber; for now the axe-men were at work, cutting down those trees that seemed to be most crowded with nests, and they contrived to fell them in such a manner, that, in their descent, they might bring down several others; by which means the falling of one large tree sometimes produced two hundred squabs, little inferior in size to the old ones, and almost one mass of fat. It was dangerous to walk under these flying and fluttering millions, from the frequent fall of large branches, which were broken by the weight of the multitudes above, and which in their descent often destroyed numbers of the birds themselves; while the clothes of those engaged in traversing the woods were completely covered with the excrements of the pigeons."

The quail, or partridge, is a general inhabitant of North America. Where they are not too much persecuted by the sportsmen, they become almost half domesticated; they approach the barn, particularly in winter, and sometimes, in that severe season, mix with the poultry to glean up a subsistence. What is commonly called the pheasant in Pennsylvania and the southern districts, is the ruffed grouse. Its favourite places of resort are high mountains, covered with the balsam pine, hemlock, and similar evergreens. Unlike the pinnated grouse, it always prefers the woods; is seldom or never found in open plains, but loves the pine-sheltered declivities of mountains near streams of water. The pinnated grouse avoid wet and swampy places, and are remarkably attached to dry ground; the low and open brush is preferred to high shrubby and thickets. Into these latter places they fly for refuge when closely pressed by the hunters; and here, under a stiff and impenetrable cover, they escape the pursuit of dogs and men. During the time of mating, and while the females are occupied in incubation, the males have a practice of assembling by themselves. To some select and central spot, where there is very little underwood, they repair from the adjoining district; and from the exercises performed there, this is called a scratching-place. As soon as the light appears the company assembles sometimes to the number of forty or fifty. When the dawn is past, the ceremony begins by a low tooting from one of the cocks; this is answered by another; and they then come forth one by one from the bushes, and strut about with all the pride and ostentation they can display. Their necks are incurvated; the feathers on them are erected into a sort of ruff; the plumes of their tails are expanded like fans; and they strut about in a style resembling, as nearly as small may be illustrated by great, the pomp of the turkey cock; they seem to vie with each other in stateliness; and, as they pass each other, frequently cast looks of insult, and utter notes of defiance. These are the signals for battles, in which they engage with wonderful spirit and fierceness, and

during which they leap a foot or two from the ground, and utter a cackling, screaming, and discordant cry. After the appearance of the sun, they disperse. These places of exhibition have been often discovered by the hunters, who have freely availed themselves of the facilities thus afforded for the destruction of the birds; and the grouse, after having been repeatedly disturbed, are afraid to assemble. Several new species of grouse have recently been discovered by Mr. Douglas, among the Chippewayan Mountains: the finest bird of this species, however, is described by Charles Lucien Bonaparte, under the name of the cock of the plains. It must have formed, from the earliest periods, a principal ornament of the distant wilds of the west: hardly inferior to the turkey in size, beauty, and usefulness, this bird is entitled to the first place in the series of North American grouse, with a preeminence like that which the cock of the woods so justly claims among those of Europe and Asia.

The native country of the wild turkey extends from the north-western territory of the United States to the Isthmus of Panama. In Canada, and the now densely-peopled parts of the United States, they were formerly very abundant; but, like the Indian and the buffalo, they have been compelled to yield to the destructive ingenuity of the white settlers, often wantonly exercised, and to seek refuge in the remotest parts of the interior. On hearing the slightest noise, they conceal themselves in the grass, or among shrubs, and thus frequently escape the hunter, or the sharp-sighted birds of prey; and the sportsman is unable to find them during the day, unless he has a dog trained for the purpose. When only wounded, they quickly disappear, and, accelerating their motion by a sort of half flight, run with so much speed that the swiftest hunter cannot overtake them. The traveller driving rapidly down the declivity of one of the Alleghanies, may sometimes see several of them before him, evincing no urgent desire to get out of the road; but on alighting in hopes of shooting them, he soon finds that all pursuit is vain.^d

The wading birds of the United States, as might be expected from the great extent of its various waters, are of great multitude and variety. The kildeer plover, so called from its note, is a restless and noisy bird, known to almost every inhabitant of the republic, being a common and pretty constant resident. During the severity of winter, when snow covers the ground, it retreats to the sea-shore, where it is found at all seasons; but no sooner have the rivers broken up, than its shrill note is again heard, either roaming about high in air, tracing the shore of the river, or running amidst the watery flats and meadows: as spring advances, it resorts to the newly ploughed fields, or level plains bare of grass, interspersed with shallow pools; or, in the vicinity of the sea, to dry, bare, sandy fields. The oyster-catcher frequents the sandy

^d Bonaparte's Continuation of Wilson's Ornithology.

sea-beach of New Jersey and other parts of the Atlantic coast, in summer, in small parties of two or three pairs together. They walk along the shore in a watchful, stately manner, at times probing it with their long wedge-like bills, in search of small shell fish. It is the only one of its genus hitherto discovered, and a fanciful observer might imagine, that it had borrowed the eye of the pheasant, the legs and feet of the bustard, and the bill of the woodpecker.

The whooping crane is the tallest and most stately species of all the feathered tribes of the United States; the watchful inhabitant of extensive salt marshes, desolate swamps, and open morasses in the neighbourhood of the sea. They wander along the marshy and muddy flats of the sea-shore in search of marine worms, sailing occasionally from place to place, with a low and heavy flight, a little above the surface; and they have at such times a very formidable appearance. At times they utter a loud, clear, and piercing cry, which may be heard at the distance of two miles; they have also various modulations of this singular note, from the peculiarity of which they derive their name. This bird is nearly five feet in height, and four feet six inches in length. The great heron is a constant inhabitant of the Atlantic coast, from New York to Florida; in deep snows and severe weather seeking the open springs of the cedar and cypress swamps, and the muddy inlets occasionally covered by the tides. On the higher inland parts of the country, beyond the mountains, they are less numerous; and one which was shot in the upper parts of New Hampshire, was considered as a great curiosity. The snowy heron is seen at all times during summer among the salt marshes, watching and searching for food, or passing, sometimes in flocks, from one part of the coast to another. They often make excursions up the rivers and inlets, but return regularly in the evening to the red cedars on the beach, to roost. The American bittern is a nocturnal species, common to all the sea and river marshes, though nowhere numerous: it rests all day among the reeds and rushes, and, unless disturbed, flies and feeds only during the night. In some places it is called the Indian hen; on the sea-coast of New Jersey, it is known by the name of *dunkadoo*, a word probably imitative of its common note. They are also found in the interior. It utters at times a hollow guttural note among the reeds, but has nothing of that loud booming sound for which the European bittern is remarkable.

The United States present several species of the ibis, the curlew, and the sandpiper. One of the most common strand birds is the purre. It is extremely active and expert in running and searching among the sand on the reflux of the waves, as it nimbly darts about for food. These birds, in conjunction with several others, sometimes collect together in such flocks, as to seem, at a distance, a large cloud of thick smoke, varying in form and appearance every instant, while it performs its evolutions in the air: as this cloud descends and courses along the shores of the ocean with great rapidity, in a kind of waving serpentine flight, alternately throwing its dark and white plumage

to the eye, it forms a very grand and interesting appearance. At such times the sportsman makes prodigious slaughter among them; while, as the showers of their companions fall, the whole body often alight, or descend to the surface with them, till he is completely satiated with destruction. The semipalmated snipe is one of the most noisy and noted birds that inhabit the salt marshes in summer. Its common name is the willet, by which appellation it is universally known along the shores of New York, New Jersey, Delaware, and Maryland, in all of which places it breeds in great numbers. It is peculiar to America. It arrives from the south on the shores of the Middle States about the 20th of April, or beginning of May; and, from that time to the last of July, its loud and shrill reiterations of *pill-will-willet*, *pill-will-willet*, resound almost incessantly along the marshes, and may be distinctly heard at the distance of more than half a mile. The American woodcock is universally known to the sportsmen; but, from the nature of the ground where they are to be sought, viz. deep mire intersected with old logs, which are covered and hid from sight by high reeds, weeds, and alder bushes, both men and dogs are soon tired out.

The clapper-rail is a very numerous and well-known species, inhabiting the whole Atlantic coast from New England to Florida. It is called by different names, such as the mud-hen, clapper-rail, meadow-clapper, big rail, &c. Its principal residence is in the salt marshes. None of the species afford the American sportsmen greater entertainment, or a more delicate repast, than the Carolina rail. Early in August, when the reeds along the shores of the Delaware have attained their full growth, the rail resort to them in great numbers to feed on the seeds of this plant, of which they are immoderately fond. When the reeds are ripening, and even while they are in blossom, the rail are found to have taken possession of them in great numbers. As you walk along the embankment of the river at this season, you hear them squeaking in every direction like young puppies; if a stone be thrown among the reeds, there is a general outcry, and a reiterated *kuk, kuk, kuk*, something like that of a guinea fowl. In the mean time none are to be seen, unless it be at or near high water; for, when the tide is low, they universally secrete themselves among the interstices of the reeds, and you may walk past, and even over them, where there are hundreds, without seeing a single individual. On their first arrival, they are generally lean, and unfit for the table; but, as the reeds ripen, they rapidly fatten, and from the 20th of September to the middle of October they are excellent, and eagerly sought after. The usual method of shooting them in this quarter of the country is as follows:—The sportsman furnishes himself with a light boat, and a stout experienced boatman, with a pole of twelve or fifteen feet long, thickened at the lower end to prevent it from sinking too deep into the mud. About two hours or so before high water, they enter the reeds, and each takes his post, the sportsman standing in the bow ready for

action, the boatman on the stern seat pushing her steadily through the reeds. The rail generally spring singly as the boat advances, and at a short distance ahead are instantly shot down, while the boatman, keeping his eye on the spot where the bird fell, directs the boat forward, and picks it up as the sportsman is loading. In this manner the boat moves steadily through and over the reeds, the birds flushing and falling, the sportsman loading and firing, while the boatman is pushing and picking up; and the sport continues till an hour or two after high water, when the shallowness of the water, and the strength and weight of the floating reeds, as also the backwardness of the game to spring as the tide decreases, oblige them to return.—The red flamingo is occasionally seen in Florida; and the roseate spoonbill inhabits the coast as high as Georgia. The latter bird has been found as far up the Mississippi as Natchez.

The black-skimmer, or sheerwater, is a truly singular fowl, the only species of its tribe hitherto discovered. It inhabits the whole Atlantic coast, during the summer, and retires early in September. Its favourite haunts are low sand bars, raised above the reach of the summer tides, and dry flat sands on the beach in front of the ocean. The sheerwater is formed for skimming while on wing the surface of the sea for its food, which consists of small fish, shrimps, young fry, &c. whose usual haunts are near the shore, and towards the surface. That the lower mandible, when dipped into and cleaving the water, might not retard the bird's way, it is thinned and sharpened like the blade of a knife; the upper mandible being at such times elevated above the water, is curtailed in its length, as being not wanted, but it tapers gradually to a point, so that, on shutting, it offers little opposition. To prevent inconvenience from the rushing of the water, the mouth is confined to the mere opening of the gullet, which, indeed, prevents mastication taking place there; but the stomach, or gizzard, to which this business is solely allotted, is of uncommon hardness, strength, and muscularity, far surpassing in these respects any other water bird yet known. To these peculiarities is added a vast expansion of wing, to enable the bird to sail with sufficient celerity while dipping in the water. The general proportion of the length of the swiftest hawks and swallows to their breadth, is as one to two; but, in the present case, as there is not only the resistance of the air, but also that of the water, to overcome, a still greater volume of wing is given, the sheerwater measuring nineteen inches in length, and upwards of forty-four in breadth. The bill of this bird and his way of life have by some authors been depreciated; but whoever attentively examine this curious apparatus, and observes the possessor, with his ample wings, long bending neck, and lower mandible occasionally dipt into and ploughing the surface, and the facility with which he procures his food, cannot but consider it a mere playful amusement, when compared with the dashing immersions of the tern, the gull, or the fish-hawk, who, to a superficial observer, appear so much better accommodated. The laughing gull, known in America by the name of the black-headed gull, is one

of the most beautiful and most sociable of its genus. They make their appearance on the coast of New Jersey in the latter part of April; and do not fail to give notice of their arrival by their familiarity and loquacity. The inhabitants treat them with the same indifference that they manifest towards all those harmless birds which do not minister either to their appetite or their avarice; and hence the black-heads may be seen in companies around the farm-house, coursing along the river shores, gleaning up the refuse of the fishermen and the animal substances left by the tide; or scattered over the marshes and newly-ploughed fields, regaling on the worms, insects, and their larvæ, which, in the vernal season, the bounty of nature provides for the sustenance of myriads of the feathered race.

The Canada goose is the common wild goose of the United States, whose migrations are the sure signals of returning spring or winter. In their aerial voyages to and from the north, these winged pilgrims pass over the interior on both sides of the mountains, as far west, at least, as the Osage river. Wounded geese have, in numerous instances, been completely domesticated, and they readily pair with the tame grey geese; the offspring are said to be larger than either, but the characteristic marks of the wild goose still predominate. The sportsmen on the sea-shore have long been in the practice of taming the wounded of both sexes, and have sometimes succeeded in getting them to pair and produce. On the approach of every spring, however, these birds discover symptoms of great uneasiness, frequently looking up into the air, and attempting to go off; and some whose wings have been closely cut, have travelled on foot in a northern direction, and have been found at the distance of several miles from home. They hail every flock that passes overhead, and the salute is sure to be returned by the voyagers, who are prevented from alighting among them only by the presence and habitations of man. Our readers will be entertained with the following surprising but well-authenticated narrative:—"Mr. Platt, a respectable farmer on Long Island, being out shooting in one of the bays which, in that part of the country, abound with water-fowl, wounded a wild goose. Being wing-tipped, and unable to fly, he caught it, and brought it home alive. It proved to be a female; and, turning it into his yard with a flock of tame geese, it soon became quite tame and familiar, and in a little time its wounded wing entirely healed. In the following spring, when the wild geese migrated to the northward, a flock passed over Mr. Platt's barn-yard; and, just at that moment, their leader happening to sound his bugle note, our goose, in whom its new habits and enjoyments had not quite extinguished the love of liberty, remembering the well-known sound, spread its wings, mounted into the air, joined the travellers, and soon disappeared. In the succeeding autumn, the wild geese, as was usual, returned from the northward in great numbers, to pass the winter in our bays and rivers. Mr. Platt happened to be standing in his yard when a flock passed directly over his barn. At that instant, he observed three geese detach

themselves from the rest, and, after wheeling round several times, alight in the middle of the yard. Imagine his surprise and pleasure, when, by certain well-remembered signs, he recognised in one of the three his long-lost fugitive. It was she indeed! She had travelled many hundred miles to the lakes; had there hatched and reared her offspring; and had now returned with her little family, to share with them the sweets of civilized life.”^e

The mallard, or the common wild duck, is found in every fresh-water lake and river of the United States in winter, but seldom frequents the sea-shores or salt marshes. This bird is numerous in the rice-fields of the southern states during winter, many of the fields being covered with a few inches of water; and, the scattered grains of the former harvest lying in abundance, the ducks swim about and feed at pleasure. This is the original stock of the common domesticated duck, reclaimed time immemorial from a state of nature, and now become so serviceable to man. In many individuals, the general garb of the tame drake seems to have undergone little or no alteration; but the stamp of slavery is strongly imprinted in his dull indifferent eye and grovelling gait, while the lofty look, long tapering neck, and sprightly action of the free bird, bespeak his native spirit and independence.

The canvass-back duck, a celebrated American species, altogether unknown in Europe, arrives in the United States from the north about the middle of October. A few resort to the Hudson and Delaware, but the great body of these birds descend to the numerous rivers in the neighbourhood of the Chesapeake, particularly the Susquehannah, the Patapsco, Potowmac, and James rivers, which appear to be their general winter rendezvous. They are chiefly found in that particular part of tide water where a certain grass-like plant grows, on the roots of which they feed. They swim with great speed and agility, and sometimes assemble in such multitudes as to cover several acres of the river; when they rise suddenly, they produce a noise resembling thunder. They float about the shoals, diving and tearing up the grass by the root, which is the only part they eat. They are extremely shy, and can rarely be approached, unless by stratagem; and when wounded in the wing, they dive to such prodigious distances, and with such rapidity, continuing it so perseveringly, and with such cunning and vigour, as almost always to render the pursuit hopeless. From the great demand for these ducks, and the high price they uniformly bring in market, various artifices are practised to get within gunshot of them. The canvass-back, in the rich juicy tenderness of its flesh, and its delicacy of flavour, stands unrivalled by the whole of its tribe in this, or perhaps in any other quarter of the world; and those killed in the waters of the Chesapeake are generally esteemed superior to all others, doubtless from the great abundance of their favourite food

^e Wilson's Ornithology.

which these rivers produce. At public dinners, hotels, and particular entertainments, the canvass-backs are universal favourites.

The widgeon is the constant attendant of the canvass-back duck, by the aid of whose labour he has ingenuity enough to make a good subsistence. This bird is extremely fond of the tender roots of that aquatic plant on which the canvass-back feeds, and for which that duck is in the constant habit of diving. The widgeon, who never dives, watches the moment of the canvass-back's rising, and, before he has his eyes well opened, snatches the delicious morsel from his mouth, and escapes. On this account the canvass-backs and widgeons, or, as they are called round the bay, bald-pates, live in a state of perpetual contention; the only chance the latter have is to retreat, and make their approaches at convenient opportunities. The goosander, called by some the water-pheasant, and by others the sheldrake, fisherman, diver, &c. is a winter inhabitant only of the sea-shores, fresh-water lakes, and rivers of the United States. They usually associate in small parties of six or eight, and are almost continually diving in search of food. Several species of merganser are common. The snake bird is an inhabitant of the Carolinas, Georgia, the Floridas, and Louisiana. It seems to have derived its name from the singular form of its head and neck, which at a distance might be mistaken for a serpent. Its habits too, while in the water, have not a little contributed to its name. It generally swims with its body immersed, especially when apprehensive of danger, with its long neck extended above the surface, and vibrating in a peculiar manner. "The first individual that I saw in Florida," says Wilson, "was sneaking away to avoid me, along the shore of a reedy marsh which was lined with alligators, and the first impression on my mind was that I beheld a snake; but the recollection of the habits of the bird soon undeceived me. On approaching it, it gradually sank, and my next view of it was at many fathoms' distance, its head merely out of the water." To pursue these birds at such times is useless, as they cannot be induced to rise, or even to expose their bodies. Wherever the limbs of a tree project over and dip into the water, there the snake birds are sure to be found; these situations being convenient resting-places for the purpose of sunning and preening themselves, and probably giving them a better opportunity than when swimming, of observing their finny prey. They crawl from the water upon the tree, and fix themselves in an upright position, which they maintain in the utmost silence; and if there be foliage or long moss, they secrete themselves in it in such a manner that they cannot be perceived, unless one be close to them. When approached, they drop into the water with such surprising skill, that one is astonished how so large a body can plunge with so little noise, the agitation of the water being apparently not greater than that occasioned by the gliding of an eel.—The noise of the countless flocks of migratory water-fowl, as they journey through the air in the spring to the

sources of the great rivers and lakes, and in autumn to the gulf of Mexico, is one of the most familiar sounds to the ear of an inhabitant of the west, and is one of his strongest and pleasantest associations with spring and autumn. The noise of migrating geese and ducks, at those periods, is also familiar to the ear of an Atlantic inhabitant; that of the swans, pelicans and cranes, is peculiar to the central valley. The swan is well known for its stateliness and brilliant white. Its migrating phalanxes are in perfectly regular forms, as are those of the geese; and they sometimes join forces, and fly intermixed with each other. Their noise on the wing is like the distant sound of a trumpet. They are killed on the rice-lakes at the north in the summer, and in the gulf and its neighbouring waters in the winter; the younger ones are as fine for the table as geese.

Mr. Flint makes the following observation respecting the birds of the Mississippi valley, as compared with those of the Atlantic regions:—"This valley, embracing all the varieties of climate of the country east of the mountains, might be supposed to have the same birds, and those birds the same habits. The former is true, and the latter is not. We have noted no birds in the Atlantic country that we have not seen here; we have many that are not seen there; and those that are common to both regions have not the same habits here as there. We have no doubt, that cultivation and the presence of civilized man affect the habits, and even the residence, of birds. There are many in the more populous and cultivated regions beyond the mountains, that seem to belong to orchards and gardens, and that appear to exult and be at home only in the midst of fruit arbours, and groves reared by art and luxury. It is remarked in the more populous and cultivated districts of the west, that, in proportion as the wilderness disappears, and is replaced by apple, pear, peach, and plum trees, and fruit gardens, the birds which cheered the infancy of the immigrants, and whose notes are associated in recollection with the charms of youthful existence, and the tender remembrances of the natal spot, and a distant and forsaken country, are found among the recent orchards. Every immigrant, especially, who was reared in New England, remembers the magpie, the bird of half-formed leaves, of planting, and the freshness of spring; and he remembers to have heard them chattering in the woods, almost to tiresomeness. They are occasionally seen in the middle and northern regions of this valley; but they are seldom heard to sing, and are only known by the lover of nature, who hears in the air, as they pass over his head, the single note which they utter in the east, when they are leaving that country. Some years since, in Missouri, we saw a number of the males gathered on a spray, in the midst of a low prairie, of a sunny morning, after a white frost; they were chattering away in their accustomed style, but they did but half carry out the song that we used to hear in the meadows of New England."

Reptiles, or animals of the serpent, turtle, and lizard class, are, of course numerous in the United States.

All the varieties of the rattlesnake are seen, in some places in pernicious abundance. The yellow rattlesnake is the largest of the species; they are sometimes seen as large as a man's leg, and from six to nine feet in length. A species of small rattlesnake is sometimes seen in great numbers on the prairies; they are said, in the regions far to the west, to consort with prairie dogs, and to inhabit the same burrows. There is a very troublesome species, called snappers, or ground rattlesnakes; they travel in the night, and frequent roads and house-paths. The copper head is a terrible serpent, supposed to inflict a more dangerous bite than the rattlesnake; they inhabit the same region, but are not so common as the former. They are of a dirty brown colour; and when they have recently shed their skin, some parts of their body resemble burnished copper, whence they derive their name. There are three or four varieties of the moccasin snake inhabiting the southern country. The upland moccasin has many aspects in common with the rattlesnake, but is a serpent still more repulsive in appearance. They have been seen of great size, and their fang teeth are extremely large and long: they are most frequently seen basking among the bastard cane. The largest variety of the water moccasin resembles the water-snake of the Atlantic country. It has a very large flat head, and it opens its upper jaw at right angles to the under one. It is a lazy, reckless animal, neither flying nor pursuing man; it is a serpent of the largest size; has a ground-coloured, scaly back; and, in point of venom, is classed with the rattlesnake. There is another species of the moccasin rarely seen out of the water, of a brilliant copper colour, with annular grey stripes, marking off compartments at equal distances. The brown viper, or hissing snake, is of a dirty brown colour, from six to eight inches long, with a body large in proportion, and terminating abruptly in a sharp tail: when angry, their backs change colour, and their heads flatten, and dilate to twice the common extent, and their hiss is like that of a goose. They are extremely ugly animals; and, though very diminutive, are supposed to be of the most venomous class. One being confined by a stick across its back, it instantly bit itself in two or three places; and when set at liberty it soon became very much swollen, and died. The accounts of the deadly venom of the horn-snake, being without actual attestation by fact, are considered as unfounded. Mr. Flint expresses his conviction that the Mississippi valley presents a greater number of serpents, and is more infested by them, than the country on the Atlantic, excepting perhaps the southern portion of it. Wherever the population becomes dense, the swine prey upon them, and they quickly disappear. Their most permanent and dangerous resorts are near the bases of rocky and precipitous hills, about ledges and flint knobs, and in the lower and southern country, along the stagnant water channels, and near those vast swamps that cannot be

inhabited for ages. People are often bitten by these terrible animals; the pain is excruciating, and the person that is badly bitten swells, and soon becomes blind. The more venomous of the serpents themselves become blind during the latter part of summer: they are then, of course, less apt to strike their aim; but their bite, at this period, is most dangerous. The people suppose this blindness to be occasioned by the absorption of their own poison into their system. Whether it be that the numerous remedies that are prescribed are really efficacious, or whether the bite of these venomous reptiles is not fatal unless the poison is conveyed into some leading vein, or from whatever cause it be, it so happens that few fatalities occur from this cause.

Of harmless serpents this country has the usual varieties, as the green, garter, chicken, and coach-whip snakes. The glass-snake is often seen with a body of the most lustrous brilliance. A stroke across the back separates the body into a number of pieces; each of these pieces preserves for some time the power of locomotion, and continues to exercise it: and the inhabitants believe that these pieces soon meet, and unite, and become as before the separation. The bull, or prairie snakes are of great size, and horrid appearance: they are common on the prairies, live in holes in the ground, and run at the passing traveller with a loud hiss; but if he stands, they instantly retreat to their holes. They are believed to be perfectly harmless; though such is their size, boldness, and formidable appearance, that it is long before the resident in these regions gets over his horror of them.

Ugly animals of the lizard kind are seen, in greater or less numbers, in all the climates: they are found under rotten logs, and are dug from the rich and muddy alluvions; these last are lazy and loathsome animals, and are called "ground puppies." It does not appear that they have any disposition to bite. Common small lizards are frequent in the southern districts, running along the logs, and making just such a sound as the rattlesnake, when he gives his warning. There are varieties of small cameleons; they are apparently harmless animals, though, when caught, they show a disposition to bite. They will change in half an hour to all the colours of the prism. Green seems to be their favourite colour, and when on a green tree, that is their general hue; while in this colour, the under part of their neck becomes of a beautiful scarlet; their throat swells, and they emit a sharp note, like that of one of the larger kinds of grasshoppers when singing. "We have placed them on a handkerchief," says Mr. Flint, "and they have gradually assumed all its colours. Placed on a black surface, they become brown; but they evidently suffer while under this colour, as is manifested by uneasy movements, and by strong and quick palpitations, visible to the eye. They are very active and nimble animals, three or four inches in length." Some lizards of a larger class and flatter heads are called scorpions; they are animals of an ugly appearance, and are deemed very poisonous, though we

have not found that any person has been known to be bitten by them. When attacked, they show the anger and the habits of serpents, vibrating a fiery and forked tongue, and biting with great fury at the stick which arrests them.

The alligator is the most terrible animal of this class. This large and powerful lizard is first seen in great numbers, in passing to the south, on the Arkansas, that is to say, a little north of 33° ; and this is its general northern limit across the continent. Vast numbers are seen in the slow streams and shallow lakes of Florida and Alabama; but they abound most on Red River, the Mississippi lakes, and the bayous west of that river: forty at one time have been numbered on a muddy bar of Red River; and on these sleeping waters, the cry of a sucking pig on the banks will draw a shoal of them from their muddy retreats at the bottom. The largest alligator that Mr. Flint ever saw killed in these regions measured something more than sixteen feet from its snout to the extremity of its tail. They have at times, especially before stormy weather, a singular roar or bellow, not exactly as Bartram has described it, like distant thunder, but more like the half-suppressed roarings of a bull. When moving about on their customary avocations in the water, they seem like old logs in motion. In fine weather they dose in listlessness on the sandbars; and such is their recklessness, that they allow the people on the passing steam-boats to come within a few paces of them. The ascent of a steam-boat on an alligator stream, at the proper season for them, is a continual discharge of rifles at them; a rifle ball, however, will glance from their bodies, unless they are hit in a particular direction. They are not, like tortoises and other amphibious animals, tenacious of life, but bleed profusely, and immediately expire when mortally wounded. They strike with their tails coiled into the section of a circle; this blow has great power, and the animal stricken is, by the same blow, propelled towards their mouth, to be devoured. Their strength of jaw is prodigious, and they are exceedingly voracious. They have large ivory teeth, which contain cavities sufficiently large to hold a musket-charge of powder, for which purpose they are commonly used by sportsmen. The animal, when slain, emits an intolerable smell of musk; and it is asserted that its head contains a quantity of that drug. They will sometimes chase children, and would overtake them, were it not for their inability to make lateral movements. Having few joints in their body, and very short legs, they cannot readily turn from a straight-forward direction; consequently, those who understand their movements avoid them without difficulty, by turning off at right angles, and leaving the animal to move forward, under its impulse in that direction: indeed, they are by no means so dangerous as they are commonly reputed to be. It is said they will attack a negro in the water in preference to a white: but they are chiefly formidable to pigs, calves, and domestic animals of moderate size. They are rather objects of terror from their dimensions, strength, and ugly appearance, and from their large teeth

and strong jaws, than from the actual injuries which they have been known to inflict. The skin of the alligator is valuable for the tanner.

The tortoise is found in considerable variety and number. The soft-shelled mud-tortoise of the lakes about New Orleans, and west of the Mississippi, is said to be not much inferior to the West India sea-turtle for the table; and epicures who are dainty in their food consider their flesh a great delicacy.—In the pine barrens of Florida, Alabama, and Mississippi, is found an animal, apparently of the tortoise class, commonly called the gouffre. It has a large and thick shell, and burrows to a great depth in the ground; it is of prodigious power and strength, and resembles in many respects the loggerhead-turtle.—The siren (*murena siren*) is a very singular animal; it somewhat resembles the lamprey, and is nearly two feet in length. It seems intermediate between the fish and the lizard class; it has two short legs, placed near the head, is amphibious, and penetrates the mud with the facility of a crawfish.—The whole of the republic is prolific in frogs, toads, and animals of that class, but more especially so the more southerly parts of it, the land of lakes, marshes, and swamps, combined with high temperature. The deep notes of the bull-frog are heard in perfection in the swamps at the back of New Orleans.

It is reasonable to suppose that so vast an extent of maritime and inland waters should afford a great quantity and variety of the finny tribes; it is to be regretted, however, that very small progress has yet been made in the scientific observation of this interesting class of animals. American ichthyology is yet in its infancy. The fishes which fill the coasts and bays of the United States are generally of the same species as on the opposite coasts of Europe. They are abundant, especially along the shore of the New England states, which, however, have no bank of the same extreme richness as that of Newfoundland. The shad and the salmon are fine fish, abounding in the Atlantic rivers; and beautiful trout are taken in the mountain streams of the northern states. Among the fish of the western waters, probably in a great measure common to them and other rivers, are noticed several varieties of perch, one of which, the buffalo-perch, derives its name from the singular grunting noise which it makes, a noise which is familiar to every one who has been much on the Ohio. It is a fine fish for the table, weighing from ten to thirty pounds. There are also varieties of the sun-fish, the bass, and the hog-fish. Besides the shad, false herring, and trout, we find in these waters sixteen species of minny, the largest of which are called shiners; but the brown buffalo-fish is one of the best fishes in the western rivers, and is found in all of them, in length from two to three feet, weighing from ten to thirty pounds. The black buffalo-fish, found in the lower waters of the Ohio and in the Mississippi, sometimes weighs fifty pounds. The buffalo of the Mississippi is larger; it is taken in immense quantities in the

meadows and lakes of the Mississippi, and greatly resembles the Atlantic shad. The trout of Louisiana and Florida is not the same with the fine fish of that name that is taken in the cold mountain streams of the northern country of the Atlantic; it is a fish of the perch class, beautifully marked with golden stripes, and taking the bait with a spring, like the trout. It weighs from one to four pounds, and is a fine-flavoured and solid fish for the table. "We have never witnessed angling," says Mr. Flint, "that could compare with that of this fish in the clear pine-wood streams of the southern divisions of this country. With fresh bait a barrel may be taken in a few hours."—The cat-fish is the most common fish in all the western waters. Twelve species have already been noted in the Ohio, and the varieties are very numerous in the waters west of that river. They are without scales, and of all colours and sizes; their mouths, when open, are circular; and they are easily taken with a hook. They receive their English name from the noise which they make when at rest; a noise very similar to the purring of a cat, and one of the most familiar to those who are used to the western states. The cat-fish of the Mississippi often weighs more than a hundred pounds.—The Ohio toter is a fish of the length of from two to three inches; it makes itself a cell by surrounding its place with pebbles; and hence, from the Virginia word "tote," to carry, is called a toter.—There are a great many species of pike in the Ohio and the Mississippi, and their waters; they are called pike, pickerel, and jack-fish, and perfectly resemble the fish of the same names in the Atlantic waters. They vary from half a pound to twenty pounds.—Of the gar-fish there are a great many varieties in the western country. The alligator-gar is sometimes eight feet in length, and is strong, fierce, voracious, and formidable, not only to the fish, which he devours by tribes, but even to men, who go into the water near him. Its dart equals the flight of birds in rapidity. It has a long, round, and pointed mouth, thick set with sharp teeth; its body is covered with scales of such a texture, as to be impenetrable by a rifle bullet, and, when dry, to make fire with steel. It is a fish of most outlandish appearance, weighing from fifty to two hundred pounds. It is considered as a far more formidable animal than the alligator: it is, in fact, the shark of rivers.—The devil-jack-diamond-fish is another monster of the rivers. It is rarely seen as high as the falls of Ohio, and probably lives in the Mississippi: its length is from four to ten feet, and one was caught which weighed four hundred pounds. It is extremely voracious; and, like the preceding, its scales will give fire with the steel.

Eels are in length from two to four feet. The yellow eel is the best species for the table. Six species of sturgeon occur in these rivers, some of them four feet in length, and some of them eatable. There is also a Mississippi saw-fish, in length from three to six feet; it has twenty-six long sharp teeth on either side, in the form of a saw, and is commonly shown in museums. Likewise a spotted horn-fish, in length

from two to three feet; the horn being one-fourth the length of the body. The bar-fish are taken with a hook; they go in shoals in the southern running waters, weighing from one to three pounds, and are beautifully striped with brown and silver. The spade, or shovel-fish, a mud fish of the middle regions of the valley, is found in muddy lakes; they weigh from ten to fifty pounds, are without scales, and have, in advance of their mouths, a smooth bony substance, much resembling an apothecary's spatula, from six inches to a foot in length, and two or three inches in width; its use, apparently, is to turn up the mud in order to find subsistence. They are extremely fat, and are taken for their oil. "We have never remarked this fish in any museum," says Mr. Flint," although to us the most strange and whimsical-looking fish we have seen. We have seen," he adds, "one instance of a horribly deformed animal, apparently intermediate between the class *testudo* and fishes. We saw it in a water of the Washita, and had not a fair opportunity to examine it. It is called toad-fish; has a shell like a tortoise; but has the other aspects of a fish. It is said to be sufficiently strong to bear a man on its back; and, from the account of those who have examined it, this animal must be a singular *lusus naturæ*."—The drum, rock-fish, sheep's-head, &c, are large and fine fish, taken in the lakes on the gulf of Mexico that are partially mixed with salt water, and so saline as not to be potable. They correspond in size to the cod and haddock of the Atlantic country, and are among the most common fish in the market at New Orleans. The fish of the gulf shore are of a very peculiar character, being taken in shallow lakes, principally composed of fresh water, but having outlets into the gulf, through which, when the wind blows strongly from the south, the sea-water is forced to such a degree that they become salt: the fish, accordingly possess an intermediate character, between those of fresh and salt water. There are vast numbers of crawfish everywhere in the shallow waters and low grounds. By penetrating the bank of the Mississippi, they have more than once made perforations which have imperceptibly enlarged to crevices, by which the inundation of the river has been let in upon the country.

The fish of the western rivers are generally less esteemed than those of the Atlantic waters, and, as it would appear, with some justice; although, in making the comparison, it should in fairness be remembered that fresh-water fish in general will not vie with those of the sea. The fishes of the Mississippi and its tributaries, generally, are tough, coarse, large, and unsavory. The trout, so called, and the bar-fish, are fine. The pike, perch, and other fish of the Illinois, are represented as excellent; and in that river they are taken in great abundance. A line, here called a "trot line," drawn across the mouth of the Illinois where it enters the Mississippi, with hooks appended at regular distances, took five hundred pounds in a night. "Except the trout, the small yellow cat-fish, the pike, the bar-fish, and

the perch," says Mr. Flint, "we do not much admire the fish of the western waters."

Dr. Mitchill gives the following account^f of a gigantic fish of the ray kind, which he calls the oceanic vampire. It had been taken in the Atlantic Ocean, near the entrance of Delaware Bay, by the crew of a smack. They had heard that creatures of extraordinary form and size were frequent in the tract situated off Capes May and Henlopen, during the warm season; and accordingly equipped themselves for the purpose of catching one or more of them. After an absence of about three weeks, the adventurers returned with an animal of singular figure and large magnitude, which they had killed after a long and hazardous encounter. The weight was so considerable after it had been towed to the shore, that three pair of oxen, aided by a horse and twenty-two men, could not drag it, by their united strength, to the dry land. By estimation, it was supposed to be between four and five tons.

	Feet.	Inches.
The length from the fore margin of the head to the root of the tail ..	10	9
Length of the tail	4	0
Length of the fins projecting forward from the corners of the mouth. .	2	6
	17	3

Making the whole length, from the tip of the head fins to the tip of the tail, seventeen feet and three inches. The breadth from the extremity of one pectoral fin or wing to the other, measuring along the line of the belly, was sixteen feet; when measured over the convexity of the back, eighteen feet. On each side of the mouth there was a vertical fin two feet and six inches long, twelve inches deep, and two inches and a half thick in the middle, whence it tapered toward the edges, which were fringed before with a radiated margin. The fin or organ so constituted could, from its flexibility, bend in all directions, and be made in many respects to perform the function of a hand, so as by twisting round, to seize an object and hold it fast. The wings, flaps, or pectoral fins, were of very curious organization. There was a scapula, humerus, ulna, carpus, and an uncommon number of phalanges, of a cartilaginous structure; all these joints were articulated with each other, but the articulations, like those of the human sternum, had very little motion. It had more analogy to the wing of a bird than to any thing else; and yet was so different from it, as to manifest a remarkable variety of mechanism, in organs intended substantially for the same use. Fish of the kind now under consideration may be aptly denominated submarine birds, for they really fly through the water as birds fly through the air. Fishes of this organization perform their flights by flapping their wings after the manner of crows, hawks, and eagles, in their progress. It is considered a very peculiar and extraordinary animal.

^f Annals of the Lyceum of Natural History, New York, vol. i.

The insects of the United States are of course numerous, and many of them of great beauty. Many of the species are entirely new, and science is particularly indebted to Mr. Say for the addition of no inconsiderable number to American entomology. The moths and butterflies are extremely splendid, and one of them, the atlas moth, the largest hitherto known. Among the spiders is a huge species, called the tarantula, supposed to inflict a dangerous bite. The annoyance inflicted by the mosquito flies, a species of gnat, in hot weather is well known; by these, and other insects armed with stings, damp and low situations are rendered during the summer almost untenable. The fire flies, which glitter especially in the forests of the south, are merely entertaining. The copper-coloured centipede, a creature of a cylindrical form, and as long as a man's finger, is dreaded as noxious; a family is said to have been poisoned by taking tea in which one of them had been inadvertently boiled.

One insect, the *ægeria exitiosa*, has long been the cause of solicitude and regret to all lovers of fine fruit in the republic, as the insidious destroyer of the peach-tree. The larva commences its destructive career about the beginning of October, by entering the tree, probably through the tender bark under the surface of the soil; after having passed through the bark, it proceeds downwards, within the tree, into the root, and then turns its course upwards towards the surface, where it arrives about the commencement of the succeeding July. They voraciously devour both the alburnum and the liber, the new wood and the inner bark, leaving the cortex and epidermis as a covering and defence. The insects deposit their eggs within the bark of the tree, which they perforate by a blunt-pointed instrument, and leave from one to three hundred eggs, according to the capacity of the tree to support their progeny.

The United States are not free from the scourge of the locust. The males have under each wing a ribbed membrane as thin as a gossamer's web, which, when inflated, constitutes their musical organ. The female has a tuberos sting or drill the size of a pin, and near half an inch in length, of a hard and brittle substance, which lies on the under surface of the body; with this the insect drills a hole into the small limbs of trees quite to the pith: there it deposits through this hollow sting or drill some dozen or two of small white eggs. The time required to drill the hole and deposit the egg is from two to five minutes. When undisturbed they make some half dozen or more insertions of their drill in the same limb, perhaps an inch apart, and these punctures usually produce speedy death to the end of the limb. They sometimes swarm about the forests in countless multitudes, making "melancholy music," and not less melancholy desolation.

BOOK III.

STATISTICS.

CHAPTER I.

AGRICULTURE.^a

IT would manifestly be foreign to the nature of the present undertaking, even did we deem ourselves competent to the task, to enter into the general theory or science of agriculture. It will, however, be our endeavour to give a brief yet faithful sketch of the agriculture, in the most comprehensive sense of the term, of the United States, enlarging only either on those points which are peculiar to that country, or upon productions which differ materially from those of Great Britain. The vast extent of latitude, and the consequent variety of climate which the republic comprises, will give to the subject a variety, interesting even to those who are not engaged in that most primitive of all occupations—the cultivation of the soil.—The agriculture of the United States naturally divides itself into northern and southern: the middle states, indeed, partake of some of the characteristics of both extremes, but do not, in a brief summary like the present, require to be ranked as a separate class; while the culture of the soil in the southern states is so entirely different in its processes and its products, that it is impossible to mingle its history with that of the northern portion of the Union.

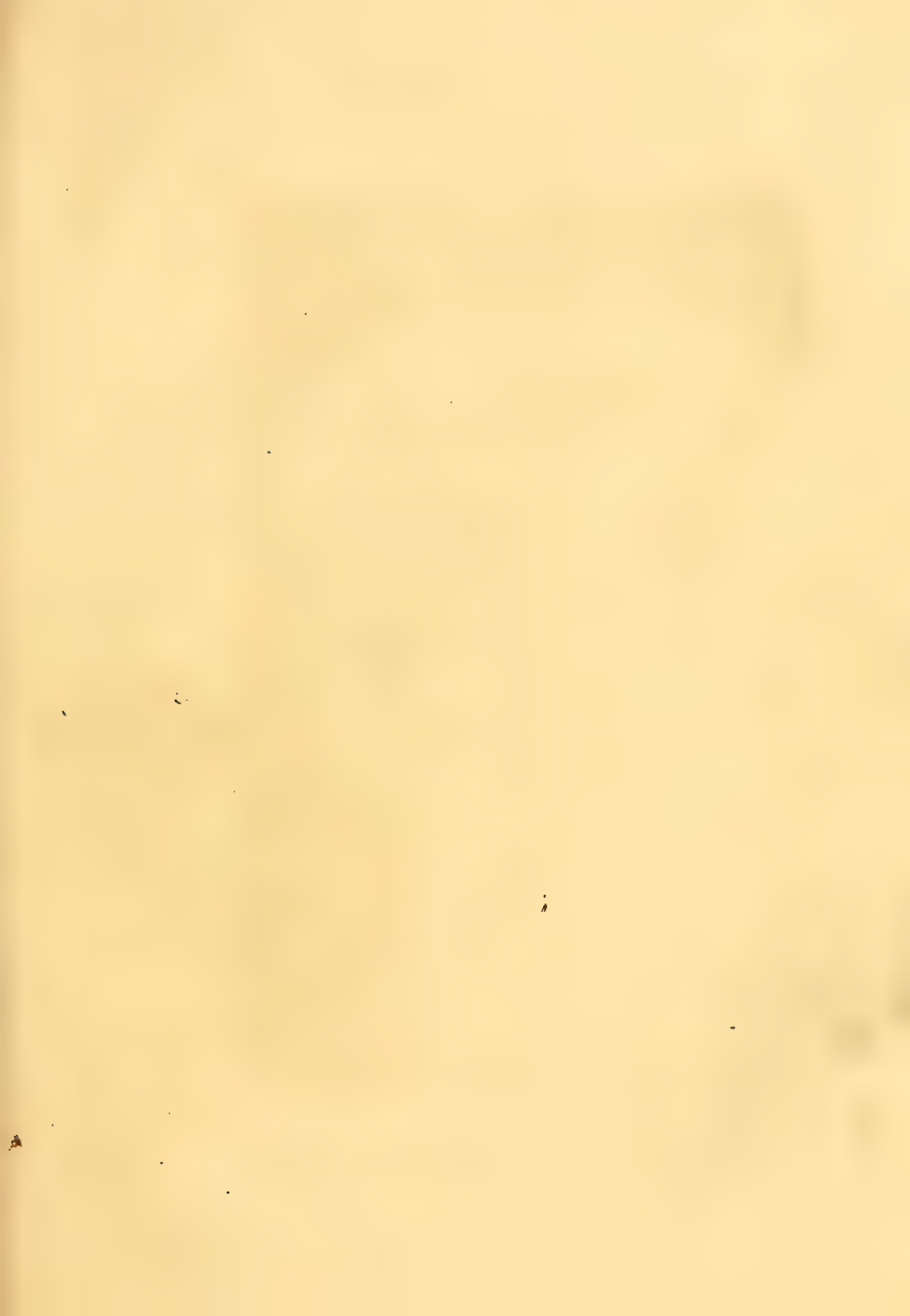
It appears to be admitted by our transatlantic neighbours themselves, that while a most abundant supply of all the bounties of nature has ever been their peculiar privilege, agriculture as a science has, till recently at least, been at a very low ebb.^b

^a It would have been, perhaps, more accordant with strict propriety to have commenced this section of the work with the chapter on population; but from several considerations which occurred to the writer, it has been deemed advisable to defer the account of the population to a subsequent portion of the work.

^b "It is indeed a lamentable truth," says Mr. Watson, "that, for the most part, our knowledge and practice of agriculture, at the close of the revolutionary war, was in a state of demi-barbarism, with some solitary exceptions. The labours, I may say, of only three agricultural societies in America at that epoch, conducted by ardent patriots, by philosophers, and gentlemen in this state, Philadelphia, and Boston, kept alive a spirit of inquiry, often resulting in useful and practical operations; and yet, these measures did not reach the doors of practical farmers to any visible extent. Nor was their plan of organization calculated to infuse a spirit of emulation, which farmer, which county, or state, should excel in the honourable strife of competition in discoveries and improvements in drawing from the soil the greatest quantum of net profits within a

The neglected state of this important branch of political economy may be traced to the condition of the first settlers and their descendants, rather than to any defect in soil or climate. Their first settlements were made along the shores of the sea, or on the banks of navigable waters. The ocean and its tributary streams offered fields for cultivation easier and more lucrative, in the scattered state of their population, than any which the land could afford. The fisheries, and navigation, thus naturally arrested the attention and chiefly occupied the thoughts of early settlers; and whatever there was of agriculture was limited to the supply of the essential necessities of the people, and to the yielding of a scanty surplus for the humble demands of colonial commerce. The circumstances of the country during the first century and a half after its settlement,—down to the time, indeed, of the revolutionary struggle,—were such as tended unavoidably to reduce agriculture below its just consequence in the scale of useful employments; and to elevate all the arts connected with navigation in a proportionate degree above their proper estimation. Not only was a large proportion of the little capital then in the country attracted to the pursuits of commerce, and drawn away from those of agriculture, but the temptations to trade and to a seafaring life were so strong as often to deprive the farmer of the most active and intelligent of his sons. When to this is added the unceasing drain upon the agricultural population by the prospects which the extent of the interior and the cheapness of lands opened to their enterprise, and the consequent effect upon the demand for labour, there is more cause of surprise that the actual state of cultivation is so good than of reproach that it did not receive higher improvement. Besides, in England itself the state of agriculture did not begin to attract any general and systematic attention until a little after the middle of the last century. The American farmer and capitalist would probably have joined earlier in the eager activity which this new state of things excited, had not the revolutionary contest, and the subsequent political embarrassments, at one period, both deprived them of the means of doing so, and forced their attention upon other objects; and had not, subsequently, the advantages resulting from neutrality during the wars of the French revolution, required at another the employment of all, and more than all, the pecuniary resources of the country.

given space : at the same time keeping the land in an improving condition, in reference to its native vigour. These results, and the renovation of lands exhausted by means of a barbarous course of husbandry for nearly two centuries, are the cardinal points now in progression in our old settled countries, stimulated by the influence of agricultural societies. Nor did their measures produce any essential or extensive effects in the improvement of the breeds of domestic animals; much less in exciting to rival efforts the female portion of the community, in calling forth the active energies of our native resources in relation to household manufactures. The scene is now happily reversed in all directions. Perhaps there is no instance in any age or country, where a whole nation has emerged, in so short a period, from such general depression, into such a rapid change in the several branches to which I have already alluded; in some instances it has been like the work of magic."—*Memoirs of the Board of Agriculture of the State of New York*, vol. iii. p. 524.





A very different arrangement in the relations of the useful arts to each other seems to have commenced in America, upon the new state of things which peace among the powers of Europe, and the increase of population and capital (the effect of time and of successful commercial industry) have induced. The natural result of peace, and of the comparatively unrestricted competition of the commercial nations of the earth, must necessarily be to limit the sphere of commercial speculation and to diminish its profits; and capital will therefore be thrown back from the water, to seek employment upon the land. Of the excess, beyond the wants of the merchant, one part will be applied directly to agriculture, and the other indirectly, by its being vested in manufactures; for whatever tends to create and fix a great population in a country, must manifestly tend to increase in that country the production of food necessary for its support: it may therefore be safely asserted, that whatever capital commerce cannot employ, becomes eventually a bounty on agriculture, until at least the resources of a country for vegetable production are fully developed. The republic already begins to perceive the effects of the great increase of capital and population, in the attention paid to the cultivation of the soil, in the agricultural associations, and the legislative patronage, which are active in the principal states of the Union. A new era in the state of agriculture has unquestionably commenced; the effect of which is to attract general consideration and concern for the art, to stimulate the ambition of the farmer, and to multiply and concentrate the means of information in relation to all the subjects connected with its prosperity.

Feelings of deep disappointment appear to have been excited in the minds of most English agriculturists who either engaged in the labours of the field themselves, or visited the farms of the republic, arising, as it appears to us, from the want of a due consideration of the different—the opposite—circumstances, in which the two countries are placed. In perusing the volumes of Messrs. Parkinson, Faux, Fearon, and others, some hundred pages of invective occur, because the Americans will persist in taking up fresh land, instead of the more costly process of manuring a worn-out soil; will raise extensive crops, instead of highly cultivating and beautifying a small space; in fact, will employ their time in a manner calculated, in their estimation at least, to produce the greatest profit with the least exertion.

In noticing the process of taking possession of and clearing for cultivation the virgin soil, some account of the simple agricultural erections which the settler requires will be both necessary and interesting. The building first erected on a new *lot*, or on a tract of land not yet cleared from its native growth of timber, is what is called a log-house. This is a hut or cabin made of round, straight logs, about a foot in diameter, lying on each other, and notched in at the corners. The intervals between the logs are filled with slips of wood, and the crevices generally stopped with mortar made of clay. The fireplace commonly consists of rough stones, so placed as to form a hearth, on which wood

may be burned. Sometimes these stones are made to assume the form of a chimney, and are carried up through the roof; and sometimes a hole in the roof is the only substitute for a chimney. The roof is made of rafters, forming an acute angle at the summit of the erection, and is covered with shingles, commonly split from pine-trees, or with bark peeled from the hemlock (*pinus canadensis*.) When the occupant or first settler of this new land finds himself in comfortable circumstances, he builds what is styled a frame-house, composed of timber, held together by tenons, mortises, and pins, and boarded, shingled, and clap-boarded on the outside, and often painted white, sometimes red. Houses of this kind generally contain a dining-room and kitchen, and three or four bed-rooms on the same floor. They are rarely destitute of good cellars, which the nature of the climate renders almost indispensable. The farm-buildings consist of a barn, proportioned to the size of the farm, with stalls for horses and cows on each side, and a threshing-floor in the middle; and the more wealthy farmers add a cellar under the barn, a part of which receives the manure from the stalls, and another part serves as a store-room for roots, &c., for feeding stock. What is called a corn-barn is likewise very common, which is built exclusively for storing the ears of Indian corn. The sleepers of this building are generally set up four or five feet from the ground, on smooth stone posts or pillars, which rats, mice, or other vermin cannot ascend.

In those parts of the country where wood is of but little value, the trees are felled in one of the summer months, the earlier in the season the better, as the stumps will be less apt to sprout, and the trees will have a longer time to dry. The trees lie till the following spring, when such limbs as are not very near the ground should be cut off, that they may burn the better. Fire must be put to them in the driest part of the month of May, or, if the whole of that month prove wet, it may be applied in the beginning of June. Only the bodies of the trees will remain after burning, and some of them will be burned also; those which require to be made shorter having been cut in pieces nearly of a length, they are drawn together by oxen, piled in close heaps, and burned; such trees and logs only being reserved as may be needed for fencing the *lot*. The heating of the soil so destroys the green roots, and the ashes made by the burning are so beneficial as manure to the land, that it will produce a good crop of wheat or Indian corn without ploughing, hoeing, or manuring. If new land lie in such a situation that its natural growth may turn to better account, whether for timber or fire-wood, it will be unpardonable waste to burn the wood on the ground; but if the trees be taken off, the land must be ploughed after clearing, or it will not produce a crop of any kind. The following remarks on this subject are extracted from some observations by Samuel Preston, of Stockport, Pennsylvania, a very observing cultivator, and may prove serviceable to settlers on uncleared lands. Previous to undertaking to clear land, Mr. Preston advises—"1st. Take a view of all

large trees, and see which way they may be felled for the greatest number of small trees to be felled along-side or on them. After felling the large trees, only lop down their limbs: but all such as are felled near them should be cut in suitable lengths for two men to roll and pile about the large trees, by which means they may be nearly all burned up without cutting into lengths, or the expense of a strong team, to draw them together. 2d. Fell all the other trees parallel, and cut them into suitable lengths, that they may be readily rolled together without a team, always cutting the largest trees first, that the smallest may be loose on the top, to feed the fires. 3d. On hill-sides, fell the timber in a level direction, then the logs will roll together; but if the trees are felled down hill, all the logs must be turned round before they can be rolled, and there will be stumps in the way. 4th. By following these directions, two men may readily heap and burn most of the timber, without requiring any team; and perhaps the brands and the remains of the log-heaps may all be wanted to burn up the old fallen trees. After proceeding as directed, the ground will be clear for a team and sled to draw the remains of the heaps where they may be wanted round the old logs. Never attempt either to chop or draw a large log, until the size and weight are reduced by fire. The more fire-heaps there are made on the clearing, the better, particularly about the old logs, where there is rotten wood. The best time of the year to fell the timber in a great measure depends on the season's being wet or dry. Most people prefer having it felled in the month of June, when the leaves are of full size. Then, by spreading the leaves and brush over the ground (for they should not be heaped), if there should be a very dry time the next May, fire may be turned through it, and will burn the leaves, limbs, and top of the ground, so that a very good crop of Indian corn and pumpkins may be raised among the logs by hoeing. After these crops come off, the land may be cleared and sowed late with rye and timothy grass, or with oats and timothy in the spring. If what is called a good burn cannot be had in May, keep the fire out until some very dry time in July or August; then clear off the land, and sow wheat or rye and timothy, harrowing several times, both before and after sowing; for, after the fire has been over the ground, the sod of timothy should be introduced as soon as the other crops will admit, to prevent briers, alders, fire-cherries, &c. from springing up from such seeds as were not consumed by the fire. The timothy should stand four or five years, either for mowing or pasture, until the small roots of the forest-trees are rotten; then it may be ploughed; and the best mode which I have observed is, to plough it very shallow in the autumn; in the spring, cross-plough it deeper, harrow it well, and it will produce a first-rate crop of Indian corn and potatoes, and, the next season, the largest and best crop of flax that I have ever seen, and be in order to cultivate with any kinds of grain, or to lay down again with grass. These directions are to be understood as applying to what are generally called beech lands, and the chopping may be done at any time in the winter,

when the snow is not too deep to cut low stumps, as the leaves are then on the ground. By leaving the brush spread abroad, I have known such winter choppings to burn as well in a dry time in August as that which had been cut the summer before."^c

The subject of improving the character of various inferior soils, or of restoring exhausted soils, by manure, is becoming of increasing importance to the American farmer, and has consequently attracted increasing attention. It is true that in situations in which large sections of fertile soil still remain unoccupied, the subject is at present of little or no importance; but to localities in the vicinity of cities or populous towns, where the land has risen to a great value, it is a question of deep interest. Drought is one of the greatest evils to which the soil of America is exposed, and gypsum is very extensively used, from the quality it possesses of attracting moisture. It does not answer near the sea or salt water, nor on wet stiff lands; it answers best on hot, loose or sandy soils, and if strewed over the land, five or six bushels are found sufficient for an acre. Bone-dust would probably answer where gypsum will not succeed. The method of using all manures of animal or vegetable origin while fresh, before the sun, air, or rain, or other moisture, has robbed them of their most valuable properties, now generally prevails; but it was formerly the practice to place barn-yard manure in layers or masses for the purpose of rotting, and turn it over frequently with the plough or spade, till the whole had become a mere *caput mortuum*, destitute of almost all its original fertilizing substances, and deteriorated in quality almost as much as it was reduced in quantity. It would be foreign to our purpose to enter more particularly into the system of manuring practised in the United States; the results of the experiments of many respectable agriculturists will be found in the publications of the New York, Pennsylvania, and other agricultural societies.

The price of labour being very high, especially when compared with the value of produce, draining is but little attended to.—The fences are almost exclusively wooden rails, thorn hedges being very rare. In the eastern states it is probable that the thorn would not succeed, owing to the severe frosts in winter; but in the middle and western states there is no doubt that it would flourish; and certainly it would afford a shelter for the cattle during the oppressive heat of summer. If the thorn would not answer as a fence, the prickly locust, and several other small trees, indigenous to the country, would make an impenetrable barrier.

Among the objects of culture, maize, or Indian corn, must take precedence, even of wheat: it is prolific beyond comparison, yielding from thirty to one hundred bushels per acre; and is cultivated in the eastern, middle, and western states, though much more successfully in the latter. Maize constitutes the principal food of man in

^c Encyclopædia Americana, vol. i. p. 109.

some districts; while it supersedes the growth of the horse-bean, and other plants, which in Europe are essential to the support of animals used in husbandry, or raised for the market. It is, in fact, one great cause of the cheapness of cattle, hogs, and poultry. Wheat, however, the grain so decidedly esteemed above all others, is considered a more valuable crop in the soils adapted to it, and where culture has made the requisite progress; it is the grain generally used for bread, and the best fitted for exportation. In the New England states, the soil and climate do not appear to reward the cultivation of wheat by an abundant produce; and the southern states of the Carolinas and Mississippi have too much moisture, and a climate too tropical. The middle states, Pennsylvania, New York, Maryland, and in the west Ohio and Kentucky, are the tracts in which this important grain is produced with that excellence which enables it to become a leading article of American export. Rye, for mixing with maize in the common bread, oats for horses, and barley for distillation, are also raised; though the two last not on so great a scale as in the northern countries of Europe.

The cultivation of plants, for their roots, has recently attracted much more of the attention of American agriculturists than formerly. The winters in the northern section of the Union, however, are so severe, that turnips can rarely be fed on the ground, and all sorts of roots are with more difficulty preserved and dealt out to stock, in this country, than in those which possess a milder climate. Happily, hay is more easily made from grass in the United States than in Great Britain, owing to the season for hay-making being generally more dry, and the sun more powerful, which renders root husbandry less essential to the prosperity of the American farmer. The different sorts of grasses which are cultivated for hay, grazing, &c. are lucern, sainfoin, burnet, timothy; red, white, and yellow clover; green-sward, blue-grass, crib-grass, &c., according to the section of the Union in which they are found respectively to be most advantageous.

Hemp is produced in some parts of the United States. Considerable portions of the lands in the states of Kentucky, Ohio, Illinois and Indiana are well adapted to its profitable culture. It may also be grown to advantage in several of the counties of the state of New York, and on the borders of the Connecticut river; or indeed in any of the middle and eastern states, where the soil is composed of a rich loam, or on alluvial bottoms. Kentucky is the state in which it was first cultivated on a great scale, and the crop in that state alone has been from five hundred to a thousand tons, which is manufactured chiefly into cotton-bagging, and the coarser kind of ropes, such as bale-rope, &c. Indeed it is supposed that Kentucky could furnish a sufficient supply for the consumption of the United States. Hemp being an exhausting crop, it has been stated that the best land will not bear a succession of more than three crops; but in Kentucky it has been ascertained by

experience that the land, by being afterwards put into grass, especially clover, will, in three years, be restored to its ability to produce a further succession of three crops of hemp. The quantity obtained from an acre, by the ordinary process of rotting and preparing the hemp, is from 500 to 800 pounds; but when cleared in an unrotted state, it is supposed that the yield will be from one half to two-thirds more. The perfection to which machinery for cleaning hemp, both in a rotted and unrotted state, is now brought, warrants the conclusion that in a short time it will be in general use. The ordinary mode of sowing the seed is considered defective, from the small quantity put into the ground. At present a bushel and a quarter is the usual quantity; but it is said by judicious farmers, that upon rich soil two bushels of seed at least ought to be used to an acre. The hemp of the United States, before rotting, is fully equal to any hemp of foreign growth, the texture of the fibre generally resembling that of St. Petersburg and Archangel; and the finest fibres being fully equal to the best Riga. The average price for Russian hemp is from 230 to 250 dollars per ton, while American (solely from the imperfect manner of rotting it) sells for about 175 dollars per ton. The hemp of the United States is almost invariably what is termed *dew-rotted*, and experience has shown, that cordage made of hemp of this description is by no means so durable as that made of *water-rotted* hemp, and the foreign hemp above mentioned is all of this kind. Dew-rotted hemp does not contain the tar necessary for the protection of the cordage from the effects of the wet, and without tar it is injuriously affected by the water, in a much greater degree than water-rotted hemp. "In order to make our hemp equal to any of foreign growth," say the manufacturers of New York,^d "and to supply its place altogether as far as quality is concerned, nothing further is necessary than that it be water-rotted, or prepared without rotting, if, upon proper investigation, it be found that the machines constructed for that purpose will make the hemp suitable for all kinds of cordage. We have long and anxiously looked forward to an improvement in the culture and preparation of the hemp of our own country, and inquiries, which we have diligently made, have resulted in the conviction that the expense and difficulties of water-rotting hemp have been much over-rated with us. It was tried upon a small scale in Orange county, in this state, and the experiment resulted very satisfactorily."

Flax is grown extensively; and the seed being highly esteemed for some of the European soils, it forms an export of considerable amount. It is stated that in some instances an acre of land has produced a profit of twenty, and in others of thirty

^d Report of the Committee of Agriculture, in relation to American canvass, cables, and cordage, presented to the House of Representatives on the 5th of January, 1825.—As an instance, among a multitude of similar facts, of the interest Congress takes in promoting the agricultural, as well as commercial interests of the Union, it may be observed, that of this Report (No. 381), which contains a mass of information on this subject, important both to the grower and the manufacturer, six thousand copies were printed by order of the House, for distribution.

dollars. The manufacture of it, however, seems in a great measure to have been superseded by the use of cotton. Indeed, the same inferiority is found in the quality of this article as in that of hemp, and from a similar cause. "In 1822," states Mr. Travers, the manager of a large factory at Paterson, New Jersey, in his examination before the committee of manufacturers,^e "I made duck of American flax, but I ascertained from actual experiment that it would not answer, and that my credit as a manufacturer was likely to suffer, and I abandoned it. I am satisfied that the superior quality of the foreign over the American flax is to be attributed, almost exclusively, to their preparing it by water-rotting, while in America it is prepared by dew-rotting. In this country too, it is suffered to grow too long, with a view of saving the seed, whilst the foreign is pulled when the bloom falls, and before the bole is formed. I conceive the difference between American flax, pulled when the blossom falls and water-rotted, and that which is pulled after it has seeded and dew-rotted, would be fifty per cent. better to the farmer and to the manufacturer, estimated upon the present prices. The one gains that much by the quantity and quality of the article, and the latter can afford to give that much more for it that it is now worth to him. Flax pulled at this time will weigh thirty-three and a half per cent. more than when suffered to go to seed."

The animals, either employed in agriculture, or reared for food, are very similar to those of Great Britain. In the eastern, middle, and western states, much attention is paid to the breeding of horses. British race, and also Arabian horses, have been imported, to improve the breed of this animal. Neither the intense cold of winter in some of the states, nor the excessive heat of summer in all the states, appear much to distress the horse in America. Some of the American horses are likewise very fleet; the races in Virginia and South Carolina prove that the swiftness of the American horse equals that of the British. There are none of those very heavy cart-horses which we have in the British sea-ports. The cow in general use is about the size of the Devonshire one, giving five or six quarts of milk at each milking. The Holderness cow, and other large breeds, would certainly not suit the United States; they are more adapted to a humid climate. It has been said that all animals dwindle in size in this country, a statement certainly very incorrect. If the same care be taken there in the breeding and feeding of horses and other animals as in England, there is not a doubt that the animal would attain an equal size or weight. Bulls have been fed in America, weighing 2000 to 2500 lbs.: hogs, 800 to 1000 lbs. Sheep do not appear to succeed so well as oxen and swine. The mutton is not so good or fine-flavoured as the English, and it is frequently sold at half the price of beef. It is probable that proper attention is

^e Report (No. 115) presented to the House of Representatives, January 31, 1828, p. 136.
VOL. II.

not paid to this animal; for it is healthy, not subject to the rot, or to many diseases which are prevalent in England. Mutton is not esteemed by the inhabitants for the table, and the sheep is principally reared for the wool, for which the demand has recently much increased. Poultry of all kinds is abundant and good, but the climate does not seem to suit the rabbit.

The implements used in agriculture in most points resemble those of Great Britain. Circumstances however require variations, which the sagacity of the American cultivator will lead him to adopt, often in contradiction to the opinions of those who understand the science better than the practice of husbandry. In Europe, land is dear and labour cheap; but in the United States the reverse is the case. The European cultivator is led, by a regard to his own interest, to endeavour to make the most of his land; the American cultivator has the same inducement to make the most of his labour.

The principal products of the southern states are tobacco, cotton, rice, and sugar. The first of these indeed is grown largely in Virginia and other of the middle states, and, together with the cultivation of wheat, has enabled many of the proprietors to amass considerable wealth; though, from the low price of tobacco, it is said now to be a speculation often attended with loss. In common with the other plants which thrive in the warm climates of the southern states, tobacco is cultivated almost exclusively by slave-labour: it is raised in the same manner as cabbages are in England, only planted at a greater distance. A bed is made as early in the spring as possible, generally in a wood, as no kind of animal will touch or eat the plant; they seem even to avoid treading upon it. The preparation is by felling the timber, and burning the tops on the place intended to be sown with seed; to raise the plants, the seed being small, the ground is hoed up, and the ashes and earth mingled together as fine as possible. New land is preferred, and treated in the same manner as that for the seed-bed: if old land, it is very highly dunged, or cow-penned, which is by folding the cattle at night on a small piece or patch of ground, as sheep are folded in England; and the latter mode is preferred to the former. The ground is then ploughed, and made fine by the harrows, in the same manner as for turnips in England. That being done, the plants are set; after which it is very common, if the man has sheep, to keep them in the fields to eat the weeds; even cattle are kept in the field for that purpose. Before the plant is set, the earth is generally drawn up into hills with the hoe, at the distance of three feet asunder, and dung put into them. It is said by the planters, that an industrious black man or woman will manage three acres. There is a caterpillar, or beautiful worm, more than an inch and a half long, of such a devouring nature, that if it be not observed every day, it soon spoils a great number of plants; therefore the plants are searched over every day, which is one cause of the three acres being set off to every planter.

The culture of tobacco exhausts the land to such a degree, that it will only sustain two or, at most, three crops. The entire process employs the negroes during the whole year: preparing the land in March and April, planting in May, hoeing and overlooking in June, July, August, and September, cutting and housing in October; the other months, in moist weather, to be pulling the leaves off the tobacco-stalks, and preparing them for market; in frosty weather in clearing the wood off, to plant new land the next year, and cutting the wood for rails, fire, &c. The following description of the mode of preparing tobacco for exportation is given by a recent traveller in the United States. "A party of a dozen negroes, on the floor of a tobacco-house, were placed, men, women, and children, in a circle, drawing the leaves from the stalk. In the centre stood two men, who, on receiving the leaves from the pickers, distributed them in heaps according to their quality. There seem to be three qualities of tobacco. The lower leaves, or those which touch the ground, are liable to get dirty and torn; but on the higher parts of the same stalk two different sorts of leaves are found, one yellow and one brown. These being carefully separated, and made up into little bunches, somewhat thicker than a man's thumb, are tied round with a thong formed out of the leaf itself. The bunches are then slung in pairs, across bars of wood, stretching from side to side of the roof, not unlike herrings in a drying-house. In the course of time, the house becomes so completely filled with these bars carrying bunches of tobacco, that there is barely left space enough for a man to creep under them to trim the fires, kept constantly burning on the mud floor to dry the leaves. The next process is to pack it into the large hogsheads which every one has seen before the door of a tobacco-shop. This operation is performed by means of long levers worked by hand, which force it into a compact mass."

The cultivation of cotton is conducted in a manner very similar to that of tobacco. It is an annual plant, growing to a considerable height, and has leaves of a bright green colour, marked with brownish veins, and each divided into five lobes. The flowers have only one petal in five segments, with a short tube, and are of a pale yellow colour, with five red spots at the bottom. The cotton-pods are of somewhat triangular shape, and have each three cells. These, when ripe, burst open, and disclose their snow-white or yellowish contents, in the midst of which are contained the seeds, in shape somewhat resembling those of grapes. The fibres of cotton are extremely fine, delicate, and flexible. When examined by the microscope, they are found to be somewhat flat, and two-edged, or triangular. Their direction is not straight, but contorted, so that the locks can be extended or drawn out without doing violence to the fibres. These threads are finely toothed, which explains the cause of their adhering together with greater facility than those of bombax and several *apocynæ*, which are destitute of teeth, and which cannot be spun into thread

without an admixture of cotton. In the southern states of the Union, the cotton cultivated is distinguished into three kinds—the nankeen cotton, so called from its colour; the green-seed cotton, producing white cotton with green seeds; and the black-seed cotton. The first two kinds grow in the middle and upper country, and are called short-staple cotton; the last is cultivated in the lower country, near the sea, and on the isles near the shore, and produces cotton of a fine, white, silky appearance, very strong, and of a long staple. Cotton appears to have been found indigenous in America; but for a long period after it had been grown in some of the southern states, it seems to have been consumed in domestic use, and none exported; indeed, the factories at this time were supplied with a foreign article. When, in 1784, a small quantity of cotton was imported into Liverpool, in a vessel from the United States, it was, at first, considered as an illegal transaction, as it was not supposed possible for it to have been the growth of any of the states of the Union; and when, about the same period, a duty was proposed in the United States Congress on the import of foreign cotton, it was declared by one of the representatives from South Carolina, that the cultivation of cotton was in *contemplation* by the planters of South Carolina and Georgia, “and that if good seed could be procured it might succeed.” How rapidly this produce must have risen in amount, and what wealth must have been accumulated by its cultivators, may be supposed when it is stated that the crop in 1824-5 was 369,259 bales; that of 1825-6, was 720,027 bales; of 1826-7, 957,281; of 1827-8, 720,593; of 1828-9, 870,415. This rapid increase of production has been attended by proportionate diminution of price, which averages only about one-third what it did formerly: “Low as the price has sunk, however,” says Mr. Everett,^f “there is good reason to think it still, with thrift and economy, a profitable branch of industry. I have been lately favoured with a minute statement of the average product of five or six cotton plantations in two of the south-western states, ascertained by putting together the income of a good and a bad year. The result of this statement is, that the capital invested in these plantations yields from fifteen to twenty per cent. clear; and that the net profit accruing to the proprietor, for the labour of each efficient hand, is 237 dollars, 50 cents per annum; being a clear gain of 4 dollars, 50 cents per week. It further appears that on one of these plantations, (and the same though not stated is believed to hold of the others, in due proportion) worth altogether, for land, labour, and stock, 92,000 dollars, the entire amount of articles paying duty annually consumed is 2,300 dollars. The average crop of this plantation, taking a good and bad year, is 14,500 dollars.—Suppose the duties to be thirty-three and a half per cent., and the whole amount of the duty to be actually assessed, in the shape of an enhanced price of the article, (the contrary of which

^f Address delivered before the American Institute of the city of New York, at their fourth annual fair, October 11, 1831, p. 40.

is known to be true, for in several articles the entire price is little more than the duty,) it would amount to less than 730 dollars per annum, or a clear profit of 14,000 dollars. The great wealth of the south is, of course, the product of the labour there performed. The productiveness of this labour must greatly depend on the cost at which it is sustained. This cost must consist chiefly of that of food and clothing. Food is subject to no duty, nor is there any duty, which, except in the most remote and indirect manner, can enhance its price. The annual cost of clothing in the south-western states,—probably in all the states south of 35°,—is said to be eight dollars per head. Suppose this supply to come enhanced one-third, it is a very small sum when assessed upon the annual product of the industry of the labourer. These statements are furnished to me on the very highest authority. There is no reason why the plantations, to which they refer, should be more productive than others in their neighbourhood, except as they may be conducted with greater skill and prudence. But there never existed, and never will exist, any branch of industry, which, in the long run, will be profitable in any but skilful and prudent hands.” There are two machines for cleansing cotton from the seeds; these are the roller-gin and the saw-gin. The essential parts of the first are two small cylinders, revolving in contact, or nearly so. The cotton is drawn between the rollers, while the size of the seeds prevents them from passing. The saw-gin, invented by Mr. Whitney, is used for the black-seed cotton, the seeds of which adhere too strongly to be separated by the other method. It is a receiver, having one side covered with strong parallel wires, about an eighth of an inch apart. Between these wires pass a number of circular saws, revolving on a common axis. The cotton is entangled in the teeth of the saws, and drawn out through the grating, while the seeds are prevented, by their size, from passing. The cotton thus extracted is swept from the saws by a revolving cylindrical brush, and the seeds fall out of the bottom of the receiver.

Rice is cultivated extensively in the southern states, by a method somewhat similar to that of garden peas in this country. The grains of this plant grow on separate pedicles, or little fruit stalks, springing from the main stalk. The whole head forms what a botanist would call a spiked panicle; that is, something between a spike like wheat, and a panicle like oats. The grain is sown in rows, in the bottom of trenches made by slave-labour entirely. These ridges lie about seventeen inches apart, from centre to centre. The rice is put in by the hand, generally by women, and is never scattered, but cast so as to fall in a line. This is done about the 17th of March. By means of flood-gates, the water is then permitted to flow over the fields, and to remain on the ground five days, at the depth of several inches. The object of this drenching is to sprout the seeds, as it is technically called. The water is next drawn off, and the ground allowed to dry, until the rice is risen to what is termed four leaves high, or between three and four inches. This requires about a month.

The fields are then again overflowed, and they remain submerged for upwards of a fortnight, to destroy the grass and weeds. These processes occupy till about the 17th of May, after which the ground is allowed to remain dry till the 15th of July, during which interval it is repeatedly hoed, to remove such weeds as have not been effectually drowned, and also to loosen the soil. The water is then, for the last time, introduced, in order that the rice may be brought to maturity; and it actually ripens while standing in the water. The harvest commences about the end of August, and extends into October. It is all cut by the male slaves, who use a sickle, while the women make it up into bundles. As it seems that no ingenuity has yet been able to overcome the difficulty of threshing the grains out by machinery, without breaking them, the whole of this part of the process is done with hand-flails in a court-yard. The next process is to detach the outer husk, which clings to the grain with great pertinacity. This is done by passing the rice between a pair of mill-stones, removed to a considerable distance from each other. The inner pellicle, or film, which envelopes the grain, is removed by trituration in mortars under pestles weighing from 250 to 300 pounds. These pestles consist of upright bars, shod with iron, which being raised up by the machinery to the height of several feet, are allowed to fall plump down upon the rice, the particles of which are thus rubbed against one another till the film is removed. It is now thoroughly winnowed, and, being packed in casks holding about 600 pounds each, is ready for distribution over all parts of the world.

The extraction of sugar from the maple has already been described,⁵ but that from the cane far surpasses it in amount, and will probably soon supersede it altogether as an article of sale. The sugar-cane is extensively cultivated in Louisiana, Georgia, and West Florida. Five kinds of sugar-cane are cultivated in Louisiana. 1st. The cane called *Cr le* cane. It is supposed to have come originally from Africa; its stalk rises vertically, the joints are closer than in the other kinds, and it is not so long and thick; its leaves also are vertical, and remarkably lanceolated; it requires as much labour as the cane of *Otaheite*: it is, of all the five kinds, the one that is most exhausting to the earth, so that, after a few years, the land on which it has been cultivated is so impoverished, that it becomes necessary to substitute cane of another kind. The sugar it produces has more strength or body than that from the others; it is, consequently, preferable for exportation, and suffers less waste by dripping in crossing the sea.—2nd. The cane from *Otaheite*, called *Bourbon* cane. The stalk is thicker than that of the other kinds, and longer than that of the *Cr le* cane; the joints are farther apart, the leaves broader, of a lighter colour, turning over, and hanging towards the ground. The roots branch out less than those of the *Cr le*

cane, and it is more liable to be thrown down by the wind. The eye or bud of this cane is very small, and so flat as to be difficult to judge of its quality. It is the most watery of all, and consequently not suitable for new land; it succeeds better in an old soil, provided that it be well ploughed. Cultivated in this way, the Otaheite cane is the one that produces the most sugar. It suffers less from the cold than the Creole, but it is more tardy in coming up; yet, when it has started, its vegetation is more rapid than that of the others. The plants are not so easily preserved, and it must be replanted every year. It is admitted that the sugar it produces has less body than that from the others.—3rd. The Riband cane, green and red.—4th. The riband cane, green and yellow. These two species of cane grow rapidly; their stalks are as high as those of the Otaheite cane, and a little less thick; the joints very far apart, as in that cane; the eyes more prominent and larger; the leaves are more bushy on the top of the cane, which exposes it to be prostrated by the wind; but this accident is little to be dreaded in these canes, because it does not germinate so easily; whilst, in the other species, the buds, in being brought in contact with the earth, vegetate speedily, which changes the sap, and injures the production of the sugar. The green and red riband cane comes up earlier than any other; it is peculiarly adapted to newly-cleared land and low grounds; it is the most vigorous, the easiest to preserve as a plant, the one that bears the most cold, and the culture of which requires the least labour; but, by reason of the thickness of its bark, it requires a stronger pressure than any other to extract the juice; and steam power alone can produce the degree of pressure necessary to avoid a considerable loss of the saccharine matter. The sugar that this cane produces possesses body, is easily made, and gives less molasses than that from any other. The green and yellow cane bears a considerable resemblance to the Otaheite; it is almost as watery, and is not hard; but it seems to be the general opinion that the plants are more easily preserved; its stalk is larger than that of the green and red riband; it is late in coming up, like the Otaheite cane, withstands the cold at least as well, and appears equally suited to lands somewhat exhausted by cultivation.—5th. The violet cane of Brazil. This plant was introduced in Louisiana in or about 1806, but it was soon abandoned, the planters having found that in the climate of the United States it is much less productive than any of the others. The Creole, the Otaheite, and the riband canes, are at present the only ones cultivated in Louisiana, and are the best suited to the nature of the soil. They are all more or less affected by the variations of the atmosphere, are very sensible to cold, and are killed in part by the frost every year. They are also exposed to other injuries, which renders the culture very expensive.

Experience has shown that the cane may be cultivated in a latitude much colder than was generally supposed; for fine crops are now made in Louisiana, in places where, a few years ago, the cane froze before it was ripe enough to make sugar.

In the process of cultivation the ground is ploughed as deep as possible, and harrowed : after it has been thus broken up, parallel drills or furrows are ploughed at the distance of two feet and a half to four feet from one another ; in these the cane is laid lengthwise, and covered about an inch with a hoe. Small canals to drain off the water are commonly dug, more or less distant from each other, and these are crossed by smaller drains, so as to form squares like a chess-board. These ditches are necessary to drain off the water from rains, as well as that which filters from the rivers, which would otherwise remain upon the plantations. The average quantity of sugar that may be produced upon an acre of land of proper quality, well cultivated, is from 800 to 1,000 pounds, provided that the cane has not been damaged, either by storms of wind, inundations, or frost. The strong soil is easiest of cultivation, and most productive in rainy seasons. The light soils require less labour, and yield more revenue in dry seasons. To these variations others are to be added, resulting from the different exposure of the lands, the greater or less facility of draining, and also from the greater or less quantity of a weed, known by the name of coco or grass nut. Sixty working hands are necessary to cultivate 240 acres of cane, planted in well-prepared land, and to do all the work necessary until the sugar is made and delivered. The sugar, up to the moment it is delivered to the merchant, costs the sugar-planter about three and a half cents per pound for expenses incurred, without reckoning the interest on his capital.^b

It will give our readers great satisfaction, however, to find that this article can be raised without the absolute necessity of employing slaves, which has been by some so strongly contended for. Mr. Coxe, in his "Statement of the Arts and Manufactures of the United States," undertaken by the direction of Congress, observes, "This new mode of managing sugar lands appears to be worthy of particular attention and statement. Instead of the employment of slaves, requiring a very burdensome advance of capital, and an expensive subsistence, the occasional labour of neighbouring, transient, hired white persons, is often used to prepare the grounds with the plough and harrow, to plant the new canes, to dress the old ones, and to clear the growing plants from weeds. The same or other white labourers are afterwards employed by the planters to cut, and stack under cover, the ripened canes, so as to prepare them for the grinding-mill and boiler. The operation of planting occurs after the sickly autumnal season, and before the vernal ; and the operation of cutting also occurs in the healthy season, at the end of the following autumn. The service is therefore not unhealthy. It is considered to be expedient that the planters who own, and they who cultivate the soil, should not expend great sums in the establishment of mills and sets of works, on all the sugar estates, after the manner of

^b Answer of the Central "Committee of the Sugar Planters of the State of Louisiana," contained in a "Letter from the Secretary of the Treasury," presented to the House of Representatives, January 21, 1831.

the West Indian colonies of the European states. But it is found much more convenient and profitable, to leave the business of grinding and boiling to one manufacturer of muscovado sugar, for a number of planters. These persons, like the owners of grain-mills and saw-gin mills, can be employed for a toll in kind, or part of the produce, or for a compensation in money. By this method a tract of three miles square, or three hundred and twenty perches square, which would contain twenty-five plantations of above one hundred and two acres each, may be accommodated by one central manufactory of muscovado sugar from the cane stalks; for none of these plantations will be more distant from the boiler than a single mile; a mere city portorage or cartage. Refineries for making white sugar, and distilleries may be added, and the economy and accommodation to the planters will be more complete. The effect of this division of labour and ownership will be, rapidly to bring into the most complete and productive cultivation, all the cane-lands in the United States, and to advance the various manufactures of this valuable and wholesome agricultural production. The easy and cheap maintenance of cattle, the abundant supplies of provisions and building materials for man and beast, and the redundancy of fuel and cask lumber, with the benefits to our planters from being more frequently and comfortably their own stewards and overseers, will greatly redound to their convenience and profit."

Indigo was formerly an object of very extensive cultivation, but the growth of it was generally abandoned when cotton became the great staple of the south. It is still produced, however, in some of the southern states, but not to any very great extent, the exportation amounting only to a few thousand or sometimes only a few hundred dollars annually, while it is imported to a large amount.

The cultivation of the mulberry tree, and the raising of silk-worms, have occupied a considerable and increasing portion of attention in the United States, and may be considered as a branch of agriculture the least pre-occupied, and the most open to energetic pursuit that the country affords. Before the revolution, attempts to produce silk were made in Georgia with some success; but circumstances were unfavourable, and ultimately they were abandoned. Sewing-silk, indeed, has been made for upwards of ninety years, and still continues to be made in the state of Connecticut, and in some other parts of the Union; but this silk is of so inferior a quality, that it not only cannot be exported abroad, but cannot even find a cash price in the domestic markets. It is disposed of in barter among the farmers, and is acknowledged not to be fit to compete with the same article imported from Europe, which still continues to be imported. The reason of this is not the want of ingenuity in the females, who, it is understood, exclusively attend to this manufacture, but to their ignorance of the art of preparing this precious material, an art which can only be acquired by experience and practice, and which must be taught by a person fully

skilled in it. Such persons are not to be obtained from foreign countries without the greatest difficulty. In several parts of the country, however, this important branch of agriculture is now more or less attended to. Societies of various kinds have been established for its promotion. With the same views, acts of incorporation have been granted by the state legislatures, and the national government themselves have not thought this object unworthy of their special patronage. The works of foreign authors on these interesting subjects issue in translations and abridgments from the press; manuals, and even periodicals, are published by American authors, all tending to produce the same result—the introduction of silk as a profitable object of culture into that country. During the year 1829, a series of essays were written by M. D'Homergue, the son of an eminent silk-manufacturer, at Nismes, who had arrived in Philadelphia at the instance of an association for the promotion of the culture of silk; they have since been published in a separate form, and will well repay the perusal of those who may feel peculiarly interested in the subject.¹ The report of the "Committee of Agriculture," who were instructed "to inquire into the expediency of adopting measures to extend the cultivation of the mulberry-tree, and to promote the cultivation of silk by introducing the necessary machinery," &c. made to the House of Representatives, March 12, 1830, states, these essays, and the facts contained, to be entitled to high confidence. "It appears from them," states the report, "that American silk is superior in quality to that produced in any other country:—in France and Italy, twelve pounds of cocoons are required to produce one pound of raw silk, whilst eight pounds of American cocoons will produce one pound of raw silk:—that cocoons cannot be exported to a foreign market from several causes,—their bulk, their liability to spoil by moulding on ship-board, and because they cannot be compressed without rendering them incapable of being afterwards reeled. It is further demonstrated in these essays, and in a strong memorial presented by the manufacturers of silk stuffs of Lyons, in France, to the minister of commerce and manufactures, that the art of filature can only be acquired by practical instruction, by some one intimately acquainted with, and accustomed to, that process; that no human skill or ingenuity, unaided by practical instruction, is capable of acquiring that art, to any profitable extent. It is made manifest, that, although the culture of silk has been carried on for many years in some parts of the United States, and more particularly in Connecticut, it has been conducted very unprofitably, compared with what the results might have been, if the art of filature had been understood. The sewing-silk made in Connecticut is from the best of the silk, and is, after all, quite inferior to that of France and Italy; in these latter countries, sewing-silk is manufactured from imperfect cocoons, or from refuse silk. It appears

also that, unless the silk is properly reeled from the cocoons, it is never afterwards susceptible of use in the finer fabrics. It is a gratifying consideration that the benefits from the culture of silk, and the acquisition of the art of reeling the same, will be common to every part of the United States. The climate of every state in the Union is adapted to the culture of silk; hatching the eggs of the silk-worms may be accelerated or retarded to suit the putting forth the leaves of the mulberry. That tree is easily propagated from the seeds of the fruit, and is adapted to almost any soil. The committee regard the general culture of silk as of vast national advantage in many points of view. If zealously undertaken and prosecuted, it will, in a few years, furnish an article of export of great value; and thus the millions, paid by the people of the United States for silk stuffs, will be compensated for by the sale of our raw silk. The importation of silk, during the year which ended on the 30th of September, 1828, amounted to 8,463,563 dollars, of which, 1,274,461 were exported; but, in the same year, the exportation of broad stuffs from this country amounted only to 5,414,665 dollars, leaving a balance against us of nearly two millions. The committee anticipate that, at a period not remote, when we shall be in possession of the finest material produced in any country, the manufacture of silk stuffs will necessarily be introduced into the United States. The culture of silk promises highly moral benefits, in the employment of poor women and children in a profitable business, while it will detract nothing from agricultural or manufacturing labour. The culture of silk will greatly benefit those states which have abundant slave-labour, the value of whose principal productions, particularly in the article of cotton, has been depressed by over production."

The first object to be obtained is undoubtedly the preparation of an abundant supply of food for the worms, which may be effected at a very small expense. There are two different species of mulberry,—the black, which is cultivated for its excellent fruit, of a dark purple colour, almost black; and is a tree of slower growth than the white; the leaves are larger, of a darker green, thicker and stronger. The silk-worms will eat them for the want of better, but they do not thrive upon them, and the silk is coarse and inferior. The white mulberry-tree bears a white, or light pink fruit, and its leaves are the most congenial food for these precious insects; is of a quicker growth, and does not come to so large a size as the black. The white mulberry is a very hardy tree, and bears the severest winters without any apparent injury; will last a great many years, and, if cut down close to the ground, will send up many suckers all around, and resist destruction for several years. There are many kinds of white mulberry, the leaves of which differ in point of merit as a food for the silk-worm. Some are of a small size, earlier, and more tender; and, on that account, are cultivated as the most proper for the worms when first hatched; others are large, and of a peculiar quality, which suit the taste of the worms, upon which

they thrive best, and make the handsomest silk. The best plants for earliness and superiority of leaves should be set out and noted, as they may hereafter furnish scions for grafting. Upon a dry soil the mulberry-trees do not grow much taller than the largest peach-trees; but they are stouter and thicker set. Their roots, which are of a remarkably bright gold colour, (that of silk,) extend to a considerable distance; and they ought not to be planted on that account nearer than thirty feet from tree to tree. As the gathering of leaves too soon would injure the growth and constitution of the trees, we would recommend that no leaves should be gathered from them until after the fifth year. In the mean time plantations may be made for immediate use, by sowing the seed in drills, at a convenient distance, planting beans or potatoes between, to keep the ground clear of weeds. The second year after sowing, these seedlings might be cut down with a sharp instrument, three or four inches from the ground, and would give a second crop the same season. In the silk countries, they raise seedlings in rows for the first feeding of the worms: these young plants putting out their leaves earlier than the old trees, and being more tender, are better adapted for the worms in the first stage of their existence. They also plant the mulberry-trees, and suffer them to grow according to unrestrained nature, branching out from the ground, for the convenience of gathering the leaves more easily, and making a food stronger than the seedlings. They consider the leaves from trees, regularly trained with a single butt, and of several years' growth, to give the most substantial food. The white mulberry thrives in all soils and situations, and will grow very rank and full of leaves upon low, moist ground; but the food it affords in such situations is very inferior, and apt to disorder the worms. A warm loam, even if gravelly, will give leaves of the best quality, and a sheltered, warm situation, will produce leaves many days sooner than one which is exposed to cold; and is desirable on that account. The mulberry-tree may be raised from suckers: sometimes slips, planted in a moist soil, will take root; and if the low branches of a tree can be bent so as to be fastened and covered in the ground, they will take root. The trees may be planted near buildings for shade, or in a yard; the fowls are very fond of the fruit when it falls. A variety of situations will increase the means of early and late feeding, which is very desirable. The most esteemed seed of that tree in Europe is that raised in Piedmont. The seed from Spain is also excellent. The seed of the best quality is large, bright, and heavy; when bruised, it will appear oily, and when thrown on ignited coals, it will crackle.

It would be superfluous here to give detailed instructions respecting the best methods of raising; the silk-worm and winding the silk. Volumes have been written by Dandolo and others on this important subject; but every needful information may be obtained from the article on this subject in the *New American Gardener*, by T. G. Fessenden; from the *Essays* already referred to; and from the *Philadelphia*

Silk Society. Persuaded that we are concurring in promoting both national and individual benefit, by extending in any degree the circulation of appeals on the importance of this subject, we shall conclude with an extract from the first of the above publications: "Fully aware of the importance of the object we have presented to the attention of the community, we cannot leave it without making a concluding appeal to the intelligence and energy of our countrymen, not to suffer any delay to take place in setting their hands to a work so promising of results the most favourable to our comforts, and for our welfare: the first step is within the farmer's immediate department, to sow the mulberry-seed, and rear the young trees; and after two years of attendance, the silk raising may commence in good earnest, and will become a healthy and pleasant business for children and young women. This rich crop will require but two months care to secure it, and when the business shall flourish on a large scale, which we may anticipate as probable within a short period, the raising of the cocoons will become a distinct occupation for farmers' families; the winding and reeling of them, most probably, will be carried on as a distinct and separate branch of industry; this is actually the case in all the silk-growing countries, where the cocoons are carried to the public markets, and sold for ready cash to those who keep filatures, where they wind and reel them. Great advantages will accrue to the younger members of farmers' families in cultivating so pleasant and profitable an employment at home: it will offer to many young women a choice between home and the factories, and a resource in case the liberal encouragement given to manufactures should eventually prove the cause of business being overdone; it will also offer valuable resources for the pauper establishments, where the old and infirm, under a discreet and judicious government, may be made to provide themselves a comfortable support. If we take a retrospective view of the affairs of mankind, since the times of early record, we find that the riches and the prosperity resulting from commerce and navigation, or from a system of extensive manufactures, however brilliant, are comparatively of short and uncertain duration; the changes of views and systems of a government at home, the changes of policy among foreign nations, render the whole fabric subject to many sudden and unforeseen vicissitudes, and dependent upon the results of relations abroad, and of the compromise of jarring interests at home, setting at defiance, in the course of time, the subtle calculations of the most accomplished statesman; but the prosperity which is founded upon a perfected agriculture, that combines with intelligence the abilities of the soil and climate, so as to naturalize, by industry, rich crops of products, unknown to its original situation, is a prosperity not liable to changes; it becomes inherent and lasting."

By the latest intelligence that has been received on this interesting subject, there appears every reason to believe that the difficulty in winding the silk will speedily be overcome. The indefatigable and patriotic advocate of this branch of national wealth,

M. Du Ponceau, with the assistance of M. D'Homergue, has already made considerable progress in instructing young females in the art of winding, and they have, in the midst of the obstacles by which they were surrounded, succeeded in producing about fifty pounds of raw silk in marketable condition; part of which has been manufactured into a national flag, and presented to the House of Representatives.^k

The vine grows in most parts of the United States, and yields a plentiful return for the labour of cultivation. A few years since a number of Swiss settlers at Vevay, in Indiana, commenced the cultivation of the grape on a large scale, an example which has been followed in many parts of the west. The vicinity of Vevay still boasts the largest vineyards in the United States. "We have witnessed nothing in our country," says Mr. Flint,^l "in the department of gardening and cultivation, which can compare with the richness of this vineyard in the autumn, when the clusters are in maturity. Words feebly paint such a spectacle. The horn of plenty seems to have been emptied in the production of this rich fruit. We principally remarked the blue or Cape grape, and the Madeira grape. The wine of the former has been preferred to the claret of Bordeaux. The fruit seems to have a tendency to become too succulent and abundant. It is now supposed that some of our native grapes will more easily acclimate to the country and soil, and make a better wine.—These amiable, industrious, and intelligent people are constantly profiting by the benefit of experience, and this species of agriculture already yields them a better profit than any other practised in our country, while they are every year improving on the vintage of the past." A large grant of land, in the territory of Alabama, was made by the general government to a French association under M. Villar, for the purpose of encouraging the cultivation of the vine and the olive. Above 270 acres had been occupied with vines in 1827, and nearly 400 olive-trees had been planted. The latter, however, do not thrive, and it is apprehended will not attain an available degree of perfection in that climate, as the tree is perished to the roots by every winter's frost, although fresh shoots appear every spring.^m

Horticulture has not been overlooked in the United States; although, amidst the bustling pursuits and profitable occupations of the agriculturist, the manufacturer, and the merchant, it has not received that general attention which is evinced in our own country: those, however, who, either from views of pleasure or of gain, have devoted their time to the culture of the garden, have not had to complain of an unsuccessful or unprofitable pursuit. Some idea of the variety of fruits and of flowers which the climate will admit of, may be formed from the following statement of the contents of a garden in the neighbourhood of Philadelphia, which may be relied

^k Twenty-first Congress, second Session, Report No. 7.

^l Geography and History of the Western States, vol. ii. p. 149.

^m Report made to the Secretary of the Treasury, Dec. 24, 1827.

on as authentic, being extracted from the Report of the Committee appointed by the Pennsylvania Horticultural Society for visiting the Nurseries and Gardens in the vicinity of that city:^a "Here are to be found," say the Committee, "113 varieties of apples, seventy-two of pears, twenty-two of cherries, seventeen of apricots, forty-five of plums, thirty-nine of peaches, five of nectarines, three of almonds, six of quinces, five of mulberries, six of raspberries, six of currants, five of filberts, eight of walnuts, six of strawberries, and two of medlars. The stock, considered according to its growth, has in the first class of ornamental trees, esteemed for their foliage, flowers, or fruit, seventy-six sorts; of the second class, fifty-six sorts; of the third class, 120 sorts; of ornamental evergreens, fifty-two sorts; of vines and creepers, for covering walls and arbours, thirty-five sorts; of honeysuckle, thirty sorts, and of roses eighty varieties."

There are, however, considerable difficulties to be overcome in this pursuit, arising from the sudden transitions of temperature, long periods of drought, and the tremendously heavy rains which wash away the soil. To avoid, as much as possible, the first of these evils, a situation sheltered from the north and north-west winds should be selected; to meet the second, the vicinity of a perennial stream will of course, if possible, be sought; and to prevent the third, a level plat free from any considerable undulations should be preferred.—Our limits do not admit of our entering into a detail of the various species of trees and plants suitable for cultivation. The quotation we have made will prove that most of the fruits and flowers of Europe may be raised in the transatlantic republic. Peaches flourish in such abundance, that in many cases they furnish food for swine; and apples are no less plentiful, the finer sorts being considered superior to those produced in Europe. Large quantities of cider are manufactured, and this is an article that, in a great measure, supersedes the use of malt liquor. On the other hand, some of the vegetables most esteemed in the old world are difficult to raise and inferior in the new; as is the case with the potatoe, which, in quantity and in flavour, is far inferior to the Irish. Notwithstanding the difficulties we have mentioned, and the inferiority of some productions, we are compelled to admit that the balance is in favour of the American horticulturist, and we believe that there are few branches of business in which an industrious English emigrant, well acquainted with the principles of gardening, would find more profitable employment.

^a Hazard's Register of Pennsylvania, vol. vii. p. 106.—[The date to which the calculations which occur in this and other chapters are brought down, will hereafter appear.]

CHAPTER II.

MANUFACTURES.

THE subject on which we now enter is one, the importance of which is too deeply felt by the mass of the community, both in America and Great Britain, especially at the present period, to require any prefatory observations to attract attention to it.—The manufactures of the United States, if not altogether of recent origin, are of surprising recent growth. During their colonial state, the British government discouraged to the utmost every tendency to manufacture even comparatively trifling articles: with other articles, the manufacture of hats was entirely prohibited.^a The cessation of intercourse between the two countries during the revolutionary period gave the first great

* “While the colonies were increasing in population, and endeavouring to secure to themselves, in some degree, the benefits of their own industry and economy, complaints were constantly made to parliament, by interested individuals, that the colonists were not only carrying on *trade*, but were setting up *manufactures* detrimental to Great Britain. These complaints produced an order of the House of Commons, in 1731, directing the Board of Trade to inquire and report, ‘with respect to laws made, manufactures set up, or trade carried on, detrimental to the *trade, navigation, or manufactures* of Great Britain.’ In a report made, in pursuance of this order, the commissioners found that certain trades carried on, and manufactures set up in the colonies, were injurious to the trade, navigation, and manufactures of the parent country. Among the manufactures, were enumerated those of wool and flax, iron, paper, hats, and leather. The Company of Hatters in London complained that great quantities of hats were made in New England, and exported to Spain, Portugal, and the British West India islands; and through their influence, an act of parliament was procured, not only to prevent the *exportation* of hats from the colonies to foreign countries, and from being carried from one plantation to another, but to *restrain*, to a certain extent, the manufacture of them in the colonies. In 1732, hats were prohibited from being shipped, or even laden upon a horse, cart, or other carriage, with an intent to be exported to any other plantation, or to any place whatever. At the same time, no hatter in the colonies was allowed to employ more than *two* apprentices at once, or to make hats, unless he had served an apprenticeship to the trade *seven* years, and no *black or negro* was permitted to work at the business of making hats.

“The manufacturers of iron next claimed their share in the benefits to be derived from the colonies. They were willing the poor colonists should reduce the iron ore, with which their land abounded, into pigs, and even bar iron, and that the same be brought to their doors, duty free, provided they could monopolize the manufacture of it beyond this incipient stage. In the year 1750, parliament permitted pig and bar iron to be imported from the colonies into London duty free, but prohibited the erection or continuance of any *mill* or other *engine* for *slitting* or *rolling* iron, or any *plating forge*, to work with a tilt hammer, or any furnace for making *steel* in the colonies, under the penalty of two hundred pounds. More effectually to carry this act into execution, every such mill, engine, plating forge, and furnace, was declared a *common nuisance*, and the governors of the colonies, on the information of two witnesses on oath, were directed to cause the same to be *abated* within thirty days, or to forfeit the sum of 500*l.*” — *Pitkin's Civil and Political History*, vol. i. p. 101, 103.



impulse to the manufacturing principle, and left the states no longer dependent on Britain for several of the minor articles of manufacture. "On the return of peace, in 1783," says Mr. Everett, in his admirable address before the American Institute, Oct. 14, 1831,^b "the influx of foreign goods, in many respects prejudicial to the country, proved in the highest degree disastrous to its mechanical and manufacturing industry. The want of one national government, and the division of the powers of government among thirteen sovereignties, made it impossible, by a uniform revenue system, to remedy the evil. The states generally attempted, by their separate navigation laws, to secure their trade to their own vessels; but the rivalry and selfish policy of some states counteracted the efforts of others, and eventually threw almost the whole navigation of the country into foreign hands. So low had it sunk in Boston, that in 1788 it was thought expedient, on grounds of patriotism, to get up a subscription to build three ships; and this incident, proving nothing but the poverty and depression of the town, was hailed as one which would give renewed activity to the industry of the tradespeople and mechanics of Boston! The same class of citizens, and the manufacturers in general, in the state of Massachusetts, petitioned the government of that state, by bounties, imposts, and prohibitions, to protect their industry. This prayer was granted, and a tariff of duties laid, which in some points,—that of coarse cottons for instance,—was higher than any duty laid by Congress before the war of 1812. But the state of the country rendered these laws of little avail. Binding in Boston, they were of no validity in Rhode Island; and what was subject to duty in New York, might be imported free in Connecticut and New Jersey. The state of the industry of the country was depressed to a point of distress unknown in the midnight of the revolution. The shipping had dwindled to nothing. The manufacturing establishments were kept up by bounties, and by patriotic associations and subscriptions, and even the common trades were threatened with ruin. It was plain, for instance, that, in the comparative condition of the United States and Great Britain, not a hatter, a boot or shoe maker, a saddler, or a brassfounder, could carry on his business, except in the coarsest and most ordinary productions of their various trades, under the pressure of foreign competition. Thus was presented the extraordinary and calamitous spectacle of a successful revolution wholly failing of its ultimate object. The people of America had gone to war, not for names, but for things: it was not merely to change a government, administered by kings, princes, and ministers, for a government administered by presidents, and secretaries, and members of Congress; it was to redress their own grievances, to improve their own condition, to throw off the burden which the colonial system laid on their industry. To attain these objects they endured incredible hardships, and bore and suffered almost beyond the measure

^b We should recommend all our readers who feel interested in the question of "free trade," to procure this judicious and lucid discourse.

of humanity. And when their independence was attained, they found it was a piece of parchment. The arm which had struck for it in the field, was palsied in the workshop; the industry which had been burdened in the colonies, was crushed in the free states; and, at the close of the revolution, the mechanics and manufacturers of the country found themselves, in the bitterness of their hearts, independent—and ruined. They looked round them in despair. They cast about for means of relief, and found none, but in a plan of a voluntary association throughout the continent, and an appeal to the patriotism of their fellow-citizens. Such an association was formed in Boston in 1787 or 1788, and a circular letter was addressed by them to their brethren throughout the Union. The proposal was favourably received, and in some of the cities zealously acted upon; but, unsupported by a general legislation, its effects must at best have been partial and inadequate. But before our meritorious citizens had discovered this, by sad experience, a new and unhoped-for remedy for their sufferings had been devised. The day-star of the constitution arose; and of all the classes of the people of America, to whose hearts it came as the harbinger of blessings long hoped for and long despaired of, most unquestionably the tradesmen, mechanics, and manufacturers hailed it with the warmest welcome. It had in fact grown out of the all-pervading inefficiency and wretchedness of the revenue system, which had been felt in ruin by them more than by any other class."

Under the new constitution a system of revenue laws, which afforded considerable protection to the manufacturers, was adopted; and to these, combined with the effect of the embargo of 1807, and the subsequent war, the present manufacturing system of the United States may be said to owe its rise; for the progressive enactments of protecting duties since the close of the war may be truly said to have been originated by the amount of capital involved and labour employed previously. Before we notice the particular species of manufactures now carried on, a general sketch of their progress, and the legislative measures by which they have been fostered, will not only afford matter of interest to the political economist, but will enable those engaged in mercantile pursuits to form a tolerably correct idea of the course which will probably be pursued in future by the United States.

The first attempt to obtain a general account of the state of manufactures throughout the United States was made by the government in 1810. The marshals of the several states, and the secretaries of the territories, and their assistants, were directed, pursuant to instructions from the secretary of the treasury, to make returns of the manufacturing establishments, and of the manufactures within their respective districts, territories, and divisions, and these were transmitted to the secretary of the treasury, for the purpose of being laid before congress. Some elaborate and valuable returns were made and transmitted, though the greater number of them were irregular, and evidently very deficient; those which came from Massachusetts, Connecticut, New

York, Pennsylvania, and Virginia, were the most complete. Notwithstanding, however, the imperfection of the returns, the agents reported 1,776 carding machines, by which 7,417,216 pounds of materials had been carded; 1,682 fulling mills, and 5,452,960 yards, which had been fulled; 122,647 spindles; 325,392 looms; 153 iron furnaces and 53,908 tons of iron manufactured; 330 forges, which made 24,541 tons of bar iron; 316 trip hammers; 34 rolling and slitting mills, which required 6,500 tons of iron; 410 naileries, in which 15,727,914 pounds of nails had been made; 4,316 tanneries, producing 2,608,240 pounds of leather; 383 flaxseed oil mills, making 770,583 gallons of oil; 141,191 distilleries, producing 22,977,167 gallons of spirits from grain, and 2,827,625 gallons from molasses; 132 breweries, in which 182,690 barrels of beer had been made; 89 carriage makers, who made 2,413 carriages; thirty-three sugar refineries, in which 7,867,211 pounds of refined sugar had been manufactured; 179 paper mills, furnishing 425,521 reams of paper; four stainers, who stained and stamped 148,000 pieces of paper; twenty-two glass works, which furnished 4,967,000 square feet of window glass; 194 potteries; eighty-two snuff mills; 208 gunpowder mills, in which 1,397,111 pounds of powder had been made.

The following summary of the value of the manufactures of the United States is founded on the above returns:—

	Value in Dollars.
1 Goods manufactured by the loom, from cotton, wool, flax, hemp, and silk, including stockings	39,497,057
2 Other goods spun from the five materials above enumerated	2,052,120
3 Instruments and machinery manufactured, estimated at 186,650 dollars; carding, fulling, and floorcloth stamping by machinery, estimated at 5,957,816 dollars	6,144,466
4 Hats of wool, fur, &c., and from mixtures thereof	4,323,744
5 Manufactures of iron	14,364,526
6 Ditto of gold, silver, set work, mixed metals, &c.	2,483,912
7 Ditto of lead	325,560
8 Soap, tallow candles, and wax, spermaceti, and whale oil	1,766,292
9 Manufactures of hides and skins	17,935,477
10 Ditto from seeds	858,509
11 Ditto from grain, fruit, and case liquors, distilled and fermented.	16,528,207
12 Dry manufactures from grain, exclusively of flour, meal, &c.	75,766
13 Manufactures of wood	5,554,708
14 Ditto of essences and oils, and from wood	179,150
15 Refined sugars	1,415,724
16 Manufactures of paper, pasteboards, cards, &c.	1,939,285
17 Ditto of marble, stone, and slate	462,115
18 Ditto of glass	1,047,002

	Value in Dollars.
19 Earthen manufactures	259,720
20 Tobacco ditto	1,260,378
21 Drugs, dye stuffs, paints, and dyeing	500,382
22 Cables and cordage	4,243,168
23 Manufactures of hair	129,731
24 Miscellaneous manufactures	4,347,611
	<hr/>
	Dollars 127,694,602

Mr. Trench Coxe, of Philadelphia, to whom the secretary of the treasury, in 1810, confided the arrangement of the returns of the marshals, &c., concerning the manufactures of the United States, in addition to the above estimates, observes, "From a consideration of all the reported details, and by a valuation of the manufactures which are entirely omitted, or imperfectly returned, for 1810, the foregoing amount of 127,694,602 dollars, is extended to 172,762,676 dollars; the sum last mentioned does not embrace the doubtful articles." The doubtful branches include such manufactures as have a very near relation in their character to, and connexion with agricultural pursuits, amongst which are the following; viz. cotton pressing, flour and meal, the mills for grinding grain, the barrels for containing the articles manufactured, malt, saw mills, horse mills, pot and pearl ashes, maple sugar, sugar from the cane, molasses, rosin, pitch, slate, bricks, tiles, saltpetre, indigo, red ochre, yellow ochre, hemp and hemp mills, fisheries, lime, grinding of plaster of Paris, &c. &c.; all of which are estimated at 25,850,795 dollars, making the aggregate value of the manufactures, of every description, within the United States, for 1810, 198,613,471 dollars."

The preceding was the state of American manufactures previously to the war, which lasted from 1812 to 1815. During this period, the country was in the same state with regard to manufactures, as though they had been protected by duties absolutely prohibitory, and, consequently, a most amazing increase of the capital and labour engaged in manufactures accrued, especially in the staple articles of cottons, woollens, and iron. The capital employed in various manufactures at this period has been estimated at 1000 millions of dollars; but on the return of peace, the influx of European goods reduced the prices nearly 50 per cent., and closed, probably, one-half the manufacturing establishments of the Union. This circumstance alone could not fail to raise the question of the propriety of some additional protecting enactments being passed; but the effect of the British corn laws on both the agriculture and commerce of America, tended yet more than the distressed state of her manufactures to render popular the imposition of protecting duties; and in 1816 a considerable increase of duties on many articles of foreign commerce was enacted

by congress. A few years' experience, however, under the uninterrupted operation of the commercial regulations of the two countries, demonstrated that inequalities still existed, and produced the conviction, that a further modification of the revenue laws was necessary. The people themselves took the lead, and gave the impulse to congress. An unsuccessful attempt was made in 1822. In 1824, the attempt succeeded, and various augmentations in the imposts were made, with the view of protecting American manufactures, and to secure to them the domestic market. On some articles of foreign manufacture, and more especially on the great British staple of cotton cloths, duties were imposed almost prohibitory, except on those of the finer kind; and the experience of a few years established the ability of the Americans to supply themselves with manufactured cottons, upon better terms than they could be procured from England. On woollen manufactures, the duty imposed in 1824 proved inadequate for protection; and the languishing state of that manufacture indicated the ruin of those engaged in it, without further legislative encouragement. Application was accordingly made to the nineteenth congress, for an increase of duties on imported woollens. After a long and animated discussion, the bill received the sanction of the house, 106 to 95; but was laid on the table (which was equivalent to rejection) in the senate, by the casting vote of the vice-president. Steps were immediately taken to bring the subject again before congress; and a general convention of delegates from the states was held at Harrisburg, with the view of concentrating public opinion, and of obtaining an harmonious cooperation in the measures to be taken for the encouragement of domestic manufactures. Contrary to general expectation, no notice was taken of the subject in the opening message to the following congress; but in the annual report from the secretary of the treasury, on the 10th of December, 1827, an elaborate view was taken of the manufactures of the country, and their encouragement and protection warmly recommended. "The time that has passed since the tariff of 1824," says the secretary, Mr. Rush, "has been sufficient to show, that the duties fixed by it upon these articles^c are not adequate to the measure of success in producing them at home, which their cardinal importance merits. A change, since 1824, in the laws of Great Britain, in regard to those first named, has also rendered almost abortive the provisions of the tariff in their favour. It belongs to the purpose of this report, which looks to the encouragement of the national industry in preference to any that is foreign, here to state, that, for a period of six successive years, ending with 1826, the value of woollen goods and cotton goods, imported into the United States from the country just named, exceeds one hundred millions of dollars; and the value of iron, and of articles manufactured from iron, seventeen millions. During one of these years, the woollens exported

^c Manufactures from woollens, cotton, and iron.

from that country to this exceeded the amount of those exported to the whole of Europe put together. For the means of exchange against an amount of foreign manufactures so great, the United States have had three principal staples of their soil, viz. wheat-flour, tobacco, and cotton. The first of these the same country has, by her laws, positively or virtually excluded, during the same period of years, from consumption within her dominions. The second she has admitted, under a duty of more than 600 per cent. The third she has received with little scruple. She has known how to convert it into a means of wealth to her own industrious people, greater than had ever before, in her whole annals, been derived from any single commodity. This she has done, first by working it up for her home use upon the largest scale, and, next, by making it subserve the interests of her foreign trade. The complete establishment of American manufactures in wool, cotton, iron, and hemp, is believed to be of very high moment to the nation. All the principal raw materials for carrying them on are at hand, or could be commanded. The skill for imparting excellence to them would come at the proper time. There would be no want of labour, to which an abundant water-power, as well as artificial machinery, would everywhere be lending its assistance. Capital would be found for investment in them. If their establishment, by the immediate protection of the laws, should, at first, raise the cost of the articles, and, for a succession of years, keep it up, a true forecast, looking to the future, rather than adapting all its calculations to the existing hour, would not hesitate to embrace the protecting policy. If it were a question of fostering manufactures for which the circumstances of the country yielded not abundant facilities, then indeed could success be accomplished only by indefinite forcing, to be followed by indefinite monopoly in price. Such is manifestly not the case. Manufactures of fine cotton, of woollens of almost all descriptions, of iron articles, and of those from hemp, have already arrived at a point, in the United States, justifying the conclusion that some additional encouragement from congress is alone wanting to fix them upon lasting and profitable foundations. This additional encouragement is invoked as a proper offset to the high degree of success which foreign industry has attained in these branches by the effect of capital and skill, long preexisting in older nations, and long aided by their laws. These are advantages not intrinsic, but accidental. Yet they cannot be countervailed but by efficient legislative aid to our own establishments in the beginning."

Early in the session the committee on manufactures entered on the investigation of the subject; and to them the petitions which flowed in from all portions of the country, both for and against an increase of duties, were referred. The resolutions also which were transmitted to congress from the legislatures of Rhode Island, New York, New Jersey, Pennsylvania, Ohio, and Indiana, in favour of an augmentation of

duties, and those from Virginia, North Carolina, South Carolina, Georgia, and Alabama, in opposition to that measure, were referred to the same committee. On the 31st of December, the chairman of the committee, Mr. Mallary, by direction, submitted a resolution, that the committee be vested with power to send for persons and papers; which was, after a long debate, agreed to. The committee, thus authorized, issued subpoenas for twelve witnesses, who were examined, together with nine who voluntarily attended, and seven members of the house. The examination was principally directed to ascertaining the cost of manufacturing iron, steel, wool, hemp, flax, sail duck, spirits from grain and molasses, glass, cotton, and paper; the capabilities of the country to manufacture them, at that time; and whether any alteration of the duties was required to protect the manufacturer against foreign competition. After four weeks spent in examining the various witnesses, the committee, on the 31st of January, made a report, accompanied by the testimony taken, and a bill, in which an increase of various duties was recommended, and which, after long discussion in both houses, and receiving several amendments, was passed into a law.^d This measure was not only violently opposed in both houses, by the representatives of the southern states, but after it had become a law, the vehemence of opposition was still more manifest among the inhabitants, and even in the state legislatures of that section of the Union. The question still continues to occupy

^d The bill, as originally proposed, was as follows:—(The final result will be apparent in the table of duties.) On iron in bars, not manufactured by rolling, 1 cent per lb.—On iron in bars, manufactured by rolling, 37 dollars per ton.—On pig-iron, 62½ cents per cwt.—On iron and steel wire, not exceeding No. 14, 6 cents per lb.; exceeding No. 14, 10 cents per lb.—On round-iron, of three sixteenths to eight sixteenths of an inch in diameter; on nail rods, slit or rolled; on sheet and hoop iron; on iron slit or rolled for bands, scroll or casement rods, 3½ cents per lb.—On adzes, axes, drawing and cutting knives, sickles, sitches, spades, shovels, squares, (of iron or steel,) bridle-bits, steelyards and scalebeams, socket chisels, vices, and screws for wood, 10 per cent. ad valorem beyond the present duty.—On steel, 1 dollar 50 cents per cwt.—On raw wool, 7 cents per lb.; and, in addition thereto, 40 per cent. ad valorem, until June 30th, 1829; from which time an additional duty of 5 per cent. ad valorem shall be imposed annually, until it shall amount to 50 per cent. All wool imported in the skin to be estimated as to weight and value, and to pay the same rate of duty as other wool.—On woollen manufactures, of which the actual value shall not exceed 50 cents the square yard, 16 cents duty the square yard.—On all of which the value is between 50 and 100 cents the square yard, 40 cents duty the square yard.—On all between 1 dollar and 2 dollars 50 cents, a duty of 1 dollar the square yard.—On all between 2 dollars 50 cents and 4 dollars, a duty of 40 per cent. ad valorem to be levied, and the goods to be valued at 4 dollars the square yard.—On all exceeding 4 dollars, a duty of 45 per cent. ad valorem.—On woollen blankets, hosiery, mits, gloves, and bindings, 35 per cent. ad valorem.—On raw hemp and raw flax, 45 dollars the ton, until June 30th, 1829, and then an additional duty of 5 dollars annually, until the whole shall amount to 60 dollars per ton.—On sail duck, 9 cents the square yard.—On molasses, 16 cents per gallon.—On all imported spirits, 10 cents per gallon, in addition to the present duty.—On window glass, above ten inches by fifteen, 5 dollars for every 100 square feet, and charging all window glass imported in sheets, uncut, with the same rate of duty.—On phials and bottles, not exceeding the capacity of six ounces each, 1 dollar 75 cents per gross.—All cotton cloths (except nankeens from China) of which the cost, together with the custom-house additions, shall be less than 35 cents the square yard, shall be deemed to cost 35 cents, and duty charged accordingly.

the first place in the discussion of the periodical press, the language of which is still occasionally so violent as almost to indicate the probability of separation between the southern and northern states, if the tariff is persisted in.

It would be incompatible with the limits, if not irrelevant to the purpose of this work, to enter into any lengthened discussion of the now virulently-contested question of free trade as applicable to the United States. With all the light which political economists have thrown on the subject, (and for some modifications of non-intercourse laws the nations are certainly indebted to their labours), the scheme of establishing a general system of free trade, in the present condition of the world, seems to be utterly hopeless; and this being the case, it appears to us, and we apprehend it will to every one who follows candidly the path of investigation through which the claims of this work have necessarily led us, that there is no nation to which laws restricting the admission of foreign manufactures, if judiciously arranged, can be more beneficial than the United States. In considering this subject, those who, on either side of the Atlantic, have charged the American legislature with folly, overlook a very important circumstance, arising from the extent of space, and the variety of climate embraced by the limits of the republic, namely, that, to a vast extent, trade which to other nations is a foreign trade, is to the United States domestic;—for instance, as far as commerce is affected, Louisiana and Georgia are at least as foreign in relation to New York or Massachusetts, as Spain or Turkey are to Great Britain: consequently, the relative importance of foreign commerce, the interests of which are mainly impeded by restrictive laws, must ever be less than in the case of other nations; while, on the other hand, the existence of a manufacturing population must tend to promote domestic cultivation, trade, and commerce, to an extent proportionably greater than would be effected in other kingdoms.^f With

* It is true that, including her colonial possessions, the same remark applies to Great Britain: and, on this very ground mainly rests that "British system" of protective duties.

^f This point is well stated by Mr. Rush, secretary to the treasury, in his Report to Congress, in 1817. "The United States," says Mr. R. "are distinguished in this respect, by a lot as peculiar as it is favourable. Nothing can exceed the inducements to various and subdivided traffic, that abound within their own limits. It is here that the economist may hope to see exemplified every essential advantage of the foreign and home trade, blended in the same system, moulded by the same policy, and freed from the jealousies that have frustrated and must ever continue to frustrate, the benevolent, but impracticable theories of commercial intercourse as between distinct nations. It is not merely that the extent of climate and soil in the Union are adapted to all pursuits that can give activity and fruitfulness to industry under every form. These are but natural advantages. It is the exchange of the products of industry upon terms the most desirable, and the most gainful, throughout so ample an extent of home dominion, that will exalt such natural advantages to the utmost. It is here that commerce may be carried on freed from every restriction, and probably for the first time, upon a political and geographical theatre so expanded. The appropriate industry of each portion may go into unfettered action; of Louisiana and of Massachusetts, of Georgia and Rhode Island. A vast home trade, resembling foreign trade, as well by intervening distances as the nature of its exchanges, will be prosecuted, whether along the ocean, or the water highways of the interior, untrammelled by tolls or imposts

respect to the numerous other circumstances which must be taken into account before it can be affirmed that any nation can conduct some of the principal branches of manufacture at all, and still more to advantage, it so happens that the United States possess, in a preeminent degree, the great requisites of manufactures—water, coal, iron, cheap provisions, and an intelligent and active population: and that in such circumstances they should feel a desire to manufacture their own raw produce, and to be enabled to do so by protection from foreign competition, to say the least, does not appear either unnatural or unreasonable. The general principle of protecting duties being admitted, however, its application to any particular branch of manufacture must depend on its own separate merits, and upon the commercial arrangements existing with other countries. As an example of the latter case, we may cite the duty levied on American flour in British ports, a reduction of which might justify the Americans in diminishing the rate of duty on British cottons or woollens, as a benefit would accrue equal to, or perhaps greater than, the loss incurred. We apprehend the history of American manufactures and commerce will fully sustain the preceding observations.

Having thus briefly noticed the circumstances which have conducted¹ to the establishment of manufactures in the United States, we shall lay before our readers such information respecting the present state of the principal branches of manufacture as we have been able to collect from public documents and other sources. As, however, there are no annual returns made to the government of the gross quantity manufactured of every article, but only of the exports, which comprise a very small portion of the whole, the information we can present, while important, will be inevitably but partial and incomplete.

In the United States, as in Great Britain, the manufacture of cotton has outstripped all its competitors, and claims the first notice: on this subject we shall avail ourselves of information contained in a very able work now publishing at Philadelphia.² The progress of this manufacture, as might be supposed, has partaken of the characteristic energy and vigour of the country. It is only, however, since the introduction of the power-loom, that it can be considered as having been established

of any kind, and without even the necessity of custom-houses; or giving to such establishments uses only formal. Such a trade can only, however, have its proper value by the extensive success of manufactures. There is nothing else that can impart to labour, in the United States, the necessary variety in its objects, and the necessary regularity and fulness in the demand. There is nothing else can adequately augment and diversify the list of commodities for which the necessities and enjoyments of improved life are ever making calls. There is nothing else will raise up towns on the surface of our territory, at every commanding point, without which land can never be made to yield the full amount of which it is susceptible, or the farmer be sure of prices steady and remunerating. It hardly need be added, how a course of policy that would infuse augmented vigour and briskness into a coasting trade, embracing in its range nearly one-half of a continent, would tend to enlarge, in all ways, the essential foundation of naval strength."

¹ *Encyclopædia Americana*, vol. iii. p. 573.

on a permanent and useful basis ; the scarcity of skilful weavers, and the high prices of weaving, had been found serious obstacles to its success, which has been, therefore, secured only by this invention. The first successful experiment with this instrument was made at Waltham, Massachusetts, in 1815, on the coarser fabrics ; but so rapid has been the extension of the manufacture, that, besides furnishing the United States with its full supply of the more staple productions, and a considerable export of coarse goods, the beautiful prints of Manchester and Glasgow are imitated in great perfection ; and more than half the consumption of the country, in this important branch, is supposed to be now furnished from native industry. This manufacture has rapidly increased in magnitude since its first introduction into the United States. It was estimated in 1830 to have caused a consumption of 35,000,000 pounds of cotton per annum, manufactured into 140,000,000 of yards of cloth, of which about 10,000,000 were exported, and upwards of 20,000,000 printed ; the value, twelve to fourteen millions of dollars, and employing a capital of twenty-five to thirty millions. Several improvements, originating in the country, have been introduced into the manufacture, and the whole process is believed to be performed to as great advantage as in any part of the world. The cottons exported are mostly of a coarse fabric, which are taking the place of the cottons of India, and are known abroad by the name of *American domestics*. They have been extensively imitated by the English, and a competition is going on, between the manufacturers of the two countries, for the possession of the foreign markets. It is thought that the possession of the raw material on the spot, and the use of the comparatively cheap moving power of water instead of steam, with the proximity of the great markets of South America, are advantages in favour of the United States, more than sufficient to counterbalance some disadvantage in the higher cost of machinery, and, as is commonly supposed, in the higher wages of labour. But the labour in the cotton mills producing these goods being wholly performed by females, it has been ascertained not to be materially dearer than the same description of work in England ; and, as the same labour is not easily applicable to any other branch of industry, it would seem not improbable that the United States will ultimately supply the foreign market with the coarser cottons. The great profits attending this manufacture, in the first instance, attracted to it, in a very short period, a large amount of capital, and produced a violent competition : the consequence has been a sudden reaction, and great depression of prices, producing considerable embarrassment in those establishments operating with inadequate capital, and unable to meet the shock of impaired credit. But, although individuals may meet with heavy losses by imprudent speculations, there is no reason to distrust the eventual success of the manufacture, which must soon find relief under the increasing consumption of the country. The largest establishments for the manufacture of

cotton in the United States, at present, (1830,) are at Dover, New Hampshire; Lowell, Massachusetts; Pawtucket, Rhode Island; Patterson, New Jersey; and in the neighbourhood of Philadelphia and Baltimore. The reduction of price in the raw material, which rapidly declined after the year 1815, has still more extended the manufacture, which, in many instances, supersedes coarse linens, and even hempen sail cloth.^a

Woollen factories are numerous in the eastern states; and the manufacture of this article excites a deep and general interest in the republic, as the production of the raw material is not confined to one portion of the country, but may be profitably pursued in some parts of nearly all the states. The protection of this manufacture was one principal object of the tariff of 1828. That without further protection both the manufacture and the growth of wool would have been abandoned, was made very apparent in the evidence tendered to the committee of manufactures appointed by congress early in that year. It appeared that several of the joint-stock manufacturing companiesⁱ

^a The following details respecting the operations of a cotton factory, near Springfield, Massachusetts, in the summer of 1830, are not without interest. "There are about 15,000 spindles in operation, and from 10,000 to 13,500 yards of cloth manufactured daily—20,000 spindles are soon to be at work. About 800 hands are employed—700 of these are females, who earn from 12 to 21 dollars a month: they pay 8 dollars for board, washing, &c.; but they all work by the piece, and some clear 18 dollars monthly. The village contains 1,400 souls: it is inhabited only by persons employed in the factories, or their families. The agent receives 3,000 dollars a year, the superintendent 2,000, and the concern is said to yield 10 per cent. on the capital invested."

ⁱ The statement of the superintendent of the Oriskany Woollen Manufacturing Company, before the committee of manufacturers, affords some interesting information respecting the management and operations of similar institutions: although, of course, they vary from each other, both in extent and in some points of management. "The officers of the company," says Mr. Dexter, "are five directors, who receive, each, 2 dollars for every attendance at the meetings of the board. The number of these meetings averages about four annually. The board appoints, from its own body, a president, secretary, and treasurer. The president and secretary receive nothing as compensation. The treasurer receives 50 dollars per annum, over and above his pay as a director. A superintending agent, who is paid 800 dollars per annum, and is furnished with a house and garden, rent free; and a clerk of the store, who receives about 10 dollars per month, and is boarded. The company employs in its service one head carder, at a salary of 400 dollars per annum, who boards himself, as do all the hands employed in the factory, except three apprentices, who receive board and clothing; one machinist, at 1 dollar 50 cents per working day; one superintending weaver, at 1 dollar 37½ cents per working day; one principal fuller; one presser, &c.; two hands in the finishing room, and one dyer, each at 1 dollar 25 cents per working day; ten hands in the spinning and carding rooms; two assistant carders, and one assistant in and about the dying house, each at 1 dollar per working day; and one watchman, also at 1 dollar per day, for every day; one fireman, at about 80 cents per day, and two or three other labourers, getting wood, &c. at about 75 cents per day, each. These include all the labouring men I can now recollect. One girl to letter the cloth, at 4 dollars per week; twenty-four women and girls, at 3 dollars each per week; and eighteen or twenty women and girls, at 2 dollars 50 cents each per week. The residue of the hands are young boys and girls, whose wages will vary from 1 dollar 25 cents to 2 dollars per week, each. The whole number employed will range from 80 to 100. Also, an assorter of wool, at about 30 dollars per month, and an assistant assorter, at about 20 dollars per month. The working hours, summer and winter, are, I think, eleven in number. They commence work at five o'clock in the morning, in winter, and, I think, in summer also. The leisure for breakfast and dinner is thirty minutes each; but at what hour they break off for breakfast I cannot say; for dinner, it is at 12 o'clock at noon. Each person employed is held to work eleven hours for a day's work; if any works less time, it is

had never paid any dividends on the capital subscribed, and that not from losses by bad debts or mismanagement, but from the reduction of the price of woollen cloths through importation from Europe. The increase of duty (for the details of which we refer to Table, No. I. at the close of this chapter,) on foreign cloths, has led to great activity in the woollen manufacture, and at the present time it is in a very prosperous state. The demand for wool is so great, that large quantities are imported from Europe, and the price of native wool has risen from 50 to 100 per cent., an advance, however, which cannot long be sustained; but unless great caution is used, it will lead to a most injurious reaction and depression. To enter into details respecting particular factories would be unnecessary in this part of the work, as they will be noticed, in a subsequent department, in the respective localities in which they occur. This observation will apply to the other articles of manufacture which remain to be noticed. Before leaving the subject of woollens, however, we regret to be compelled to add an observation not at all to the credit of the commercial world:—there appears to be too much reason to apprehend that the duties to which the several descriptions of woollens are subject according to their quality,^k are extensively evaded by means of false invoices and *false oaths*. One great evil of high protecting duties is undoubtedly the strong temptation it affords to men, whose only deity is gold, to enter on a system of fraud, and consequently to ruin those in the same line of business who are too honourable to descend to such practices. We hope, however, there may be some other method of accounting for facts which appear at first sight to admit only of such an unpleasant and disgraceful solution.^l

deducted; if more time, he is paid extra in proportion to the time. When there is a hurry, the hands are induced to work one and two hours over the regular time, each day, for which they are compensated."

^k See Table, No. II. at the close of this chapter.

^l That our mercantile readers who may feel peculiarly interested in this subject may clearly apprehend the charge as stated by the American manufacturer, we insert an extract from a letter, inserted in Niles' Register, of July 2, 1831.—"A cloth of 6-4 wide (which is the ordinary width) costing 6s. 9d. sterling, or 1 dollar 50 cents per running yard, being the highest cost which can lawfully come in under the 1 dollar minimum, can be imported at 2 dollars 53 cents, which includes cost, duties and expenses of importing; add to this 25 cents per yard for credits on sales, commission, guarantee, &c. making up the whole cost, and expenses of sale, to 2 dollars 78 cents per yard for dollar minimum cloths; if they will sell at 3 dollars per yard it is a clear profit on the investment of 15 per cent. If the cloth cost but 8s. sterling and pays the lawful duty, which is 1 dollar per yard more than on the cloth costing 6s. 9d. it must sell for 4 dollars per yard to pay the cost and charges, and remit to the owner his net cost of 8s. per yard without any profit. If a cloth cost 9s. sterling it must at least bring 4 dollars 30 cents to pay cost. If it cost 10s. it must bring 4 dollars 60 cents. If it cost 11s. 5 dollars to pay the cost.

"Merchants will not long carry on business that yields no profit, either on one or the other side of the Atlantic. On the contrary, it appears that some classes of importers appear to have made profits beyond all belief, or have suffered heavy losses. Thousands of pieces of cloths have been sold in this market by private and public sale at the prices of between 3½ and 4½ dollars per yard, mostly at 3½ and 3¾ dollars, and the sellers were well satisfied, as I am informed, with the prices they obtained.

"All cloths that cost but 6s. 9d. sterling per running yard of 6-4 wide, paying the dollar minimum duty, and which sell—

Housenold manufactures of woollen, linen, and cotton, are carried on to a great extent. Many thousands of families spin and make up their own clothing, sheets, table-linen, &c. They purchase cotton yarn, and have it frequently mixed with their linen and woollen: blankets, quilts, or coverlets, in short, nearly all articles of domestic use, are chiefly made in the family. It is supposed that nearly two-thirds of all the clothing, linen, blankets, &c., of those inhabitants who reside in the interior of the country, are of household manufacture. It is the same in the interior with both soap and candles, the inhabitants happily having no exciseman to prevent their making those articles at any time or to any extent in the family.

Next in importance and amount to the manufacture of wool is that of iron. The abundance in which the ore is found, and in the immediate vicinity of coal, has naturally promoted the erection of forges in various parts of the Union, but particularly in the state of Pennsylvania. As in other cases during the war, many extensive establishments were erected, and were very successful; but the return of peace, and the consequent influx of pig and bar iron from Europe, annihilated a very large proportion of them, the price of iron being reduced to fifty-five or sixty dollars per ton, which was less than the cost of manufacture in America, except under very favourable circumstances. The following statement of facts and estimates, showing the nature, extent, and results of the iron-making business, as conducted in the state

At 3 dollars per yard,	yield a clear profit of 15 per cent.				
At 3 dollars 25 cents	do.	do.	do.	31	do.
At 3 dollars 50 cents	do.	do.	do.	53	do.
At 3 dollars 75 cents	do.	do.	do.	75	do.

If they cost but 3*d.* sterling more than 6*s.* 9*d.* they, of course, come under the 2 dollar 50 cents minimum, and are subject to a duty of 1 dollar per yard more. Thus, if a cloth cost but 7*s.* sterling per running yard of 6-4 wide, pays the lawful duty, and sells for but

3 dollars,	it produces a loss to the owner of 55 per cent.	
If at 3 dollars 25 cents	the loss is	38 do.
If at 3 dollars 50 cents	the loss is	23 do.

"To an intelligent public I appeal whether either of these two cases is probable. That the market has been well stocked with cloths selling at 3½, 3¾ to 4 dollars, is notorious; to believe that either can be true, we must consent to the absurdity, that the owners have either realized the enormous profits of from 30 to 75 per cent. or lost from 23 to 55 per cent. There is no mistake in these figures!

"When, therefore, to these calculations, which cannot be controverted, the fact is added, that no honest man can import from England (purchased for cash) at a cost of 6*s.* 9*d.* a cloth that will sell, taking the average of all colours, for more than 3 dollars per yard, can a doubt remain? The writer has in vain tried to have cloths bought in England at 6*s.* 9*d.* that would sell for more than 3 dollars; and he asserts fearlessly, (and challenges proof that he is in error,) that the whole average of cloths of all colours that have been honestly imported at 6*s.* 9*d.* for the past nine months, have not sold in this market above the average of 3 dollars per yard,—many cloths would not bring that price; and that nearly every yard of cloth that has been sold in this market at 3½ dollars to 4 dollars, has either been smuggled or fraudulently entered, or it produced a considerable loss to the owner; and from what has been previously stated, no doubt can exist that by fraud only is this market so fully supplied with cloths of this description, thousands of pieces of which have been sold this season both at public and private sale, and the owner no doubt laughing at our folly and credulity."

of New Jersey, deposed by Mr. Jackson before the committee on manufactures in 1828, affords a very clear and interesting development of the state of the trade at the time, and, with the information subsequently given, will enable any individuals, who might be inclined to embark capital in this branch of American manufactures, to form a tolerably correct idea as to the probabilities of success:—

I. *The Nature of the Business.*

“The iron-making business in this section of country is principally conducted by persons who have severally commenced their operations by the purchase of a tract of land embracing the necessary water-power for propelling the works, and affording a sufficient quantity of timber to supply them with fuel for a number of years. In the improvement of such tracts, the first step is the erection of a dam; a forge, or iron mill, which usually contains two fires; two pair of bellows; one hammer, anvil, and the harness connected therewith; two water-wheels to move the bellows and ore stampers, and one for the hammer; a coal house; a smith’s shop; and dwellings for the owner and workmen. The business then proceeds in the employment of the necessary workmen, such as wood choppers, colliers, teamsters, and forgemen; and the preparation of teams for carting the coal, ore, and iron. It is the practice of the owners, in the prosecution of their business to furnish to the workmen, at the works, such supplies of provisions and other necessaries as they may require.

II. *The Extent of the Business, and Facilities for enlarging it.*

1st. The amount of iron actually made per annum, so far as the same can be ascertained by the returns from the different forge owners, is 2,750 tons.

2d. The amount of capital invested embraces the following items, viz.—

	Dollars
Cost of erecting 110 forge fires, now in operation, at an average expense, including machinery, dams, and coal-houses, of 1,500 dollars each	165,000
Amount invested in woodland, allowing each fire to require 750 acres for its support in producing its proportion of the 2,750 tons, made in all, equal to 82,500 acres, at an average price (the water privileges included) of ten dollars per acre	825,000
The expense of teams, tools, &c., for each fire, is 500 dollars	55,000
Cost of houses for the accommodation of workmen, allowing to each fire five houses, at 200 dollars each, 1,000 dollars	110,000
Amount of floating capital necessary to conduct the business, 500 dollars for each fire	55,000
	<hr/>
	Dollars 1,210,000

3d. The number of workmen employed in the business, allowing each fire to require two forgemen, two colliers, two cartmen, one coal stocker, five wood choppers, and a carpenter and blacksmith, equal to one hand, are thirteen to each fire, numbering, in all, 1,430 workmen,

who, with their families of four persons each, make the number of souls dependent upon the business, 5,720.

4th. The facilities for extending the business are ample. There are now in operation, as appears by this statement, 110 forge fires, producing, on an average, about twenty-five tons each per annum. Were sufficient encouragement afforded, it is presumed that these fires may be made to produce thirty-five tons each per annum, instead of the present quantity, and that a number more of equal ability would soon be put in operation, all of which could be fully supported with charcoal and ore, the materials now used in the manufacture.

III. *The Results of the Business, and Details of the Manufacture.*

	Dolls. cts.
To make one ton of bar iron, it requires—	
Three tons of ore, at an average cost of five dollars per ton	15 00
Ten loads of coal, at four dollars per load	40 00
The additional expenses are—	
Stocking ten loads of coal, at 1s. per load	1 25
Small repairs of forge, per ton	1 50
Wages of workmen for making, per ton	16 50
Average expense of cartage and freight to New York, per ton	5 00
	<hr/>
	Dollars 79 25

The average price of American bar-iron in New York, for most of the time during the last eleven years, has not been greater than it now is, viz. seventy to eighty dollars per ton.

In the above estimate of cost in making the one ton of iron, it is assumed that the coal and ore are purchased by the manufacturer at the current prices. If, however, the coal is made upon his own premises, and the ore raised from his own mine, the following estimate will show the result :—

	Dolls. cts.
Cost of cutting twenty cords of wood, for one ton of iron, at 3s. per cord	7 50
Cooling ten loads of coal, at 12s. per load	15 00
Carting ditto, at 8s. per load	10 00
Stocking ditto, at 1s. per load	1 25
Raising three tons of ore, at 12s. per ton	4 50
Carting ditto, at 8s. per ton	3 00
Wages for making one ton of iron	16 50
Small repairs of forge, per ton	1 50
Cartage and freight to New York, per ton	5 00
	<hr/>
	Dollars 64 25

Should any allowance be made in the last estimate, for the value of the standing wood used in making the coal, and of the ore in the bed, the following sum should be added to the amount of this estimate viz.

	Dolls. etc.
Twenty cords of standing wood at 4s. per cord	10 00
Three tons of ore in the bed, at 12s. per ton	4 50
	<hr/> 14 50
Amount of the last estimate added	64 25
	<hr/> Dollars 78 75

It is perceived that the foregoing estimates include no account of interest of capital invested, decay of works, expense of management, taxes, &c.; nor is any provision made for risks or losses, although the business is greatly exposed to the hazards of both. Were these items estimated, there should be an addition of ten to fifteen dollars per ton, to each of the foregoing estimates. It will also be perceived that in this statement no estimate has been submitted of the amount of capital invested in mines, or the cost of opening them, from the impossibility of arriving at any thing satisfactory respecting them. It can only be stated that there are fifty mines in this district already opened, fifteen of which are at present worked, and that the quantity of good ore is presumed to be inexhaustible.

This statement is, moreover, strictly confined to facts and estimates in relation to manufacturing of bar iron, without any allusion to furnaces, of which there are several, or to rolling mills, of which there are four in the district, three situated at Dover, and owned by Messrs. Blackwell and M'Farlan, of the city of New York, which annually convert into rolled iron 1,000 tons of the manufactures of the district; and the other at Rockaway, owned by Colonel Joseph Jackson, capable of rolling about 400 tons more."

On a cursory view of this subject, it would be matter of surprise that the manufacture of iron from native ore should have continued to exist in the United States; but another statement of the same witness throws a light not only on this particular subject, but indicates one of the peculiar advantages which tend to counterbalance some of the unfavourable circumstances with which manufacturers in America have to contend. The committee very reasonably inquire, "If the business of manufacturing bar iron is as bad as you represent it, and if others in your neighbourhood have failed in it, how have you been able to sustain yourself; and why have you continued the business?" To which Mr. Jackson makes the following reply: "I have been able to sustain myself because I carry on a farm, and the manufacturing establishments furnish a good market for my farming produce. I also keep a store, and pay for a share of the labour of my workmen out of the store, and get a profit on my goods. I have, also, a grist mill, and a saw mill, which have aided me in my buildings, &c.; but establishments unconnected with these, or like advantages, have failed. My rolling mill, also, enables me to do more business, and upon which I get a little profit; and I have continued to hope for better times. I have, also, some government contracts, which have assisted me, not so much by an advance of price, as by a sure

market for a large quantity ; which enabled me to proceed with certainty, and without being subjected to the fluctuations of the market for the manufacture."

In consequence of this state of things, an advance of duty, averaging from five to twenty-five per cent. on that already imposed on foreign iron, was enacted.^m The method in which this duty was arranged appears, however, to have been much more in favour of the proprietors of the iron mines and smelters than of the manufacturers of hardware, the advance of duty being on iron rolled ; also, on slabs, blooms, and loop, or other wire, from thirty to thirty-seven dollars per ton, or nearly twenty-five per cent., while, on manufactured articles, as axes, knives, &c. the advance was only ten per cent., the alteration being, manifestly, nearly fifteen per cent. in favour of the British manufacturer. The "Petition of the Iron Manufacturers of Philadelphia, presented to Congress in the Session of 1831," states, that under these enactments, even "horseshoes" have become an article of considerable export from Britain. If the statements of the manufacturers of Philadelphia should not prove erroneous, which, from the very extensive orders executed this year at Sheffield and Birmingham, we apprehend will not be the case to any material extent, the history of the past would lead us to expect that congress will speedily remedy what they will deem an anomaly in the "American system."—Among articles of which iron forms the material, steam-engines now undoubtedly claim the first rank ; and the Americans are remarkable for the number of these admirable machines, both on land and water. Although the demand for them is constantly increasing, such is the skill which competition has brought to bear on this important article, that an engine, which, a few years since, would have cost 2,000 dollars, may now be purchased for 800 dollars.

Glass, both for windows and domestic purposes, is manufactured extensively in the United States, principally at Pittsburgh. The price of this article has much declined, owing chiefly, if not entirely, to internal competition,ⁿ a healthy process indeed, when not carried to excess ; but sometimes a direful disease, that may be termed the "madness of the few for the gain of the many," if, indeed, in some cases, it may not be more truly said, "for the gain of none." When it is carried to the extent of destroying, not only the master's profit, but the value of the labour of the mechanic, it is the madness of the few for the destruction of thousands ; a result which has accrued to a lamentable extent in Great Britain. Happily, however, the American labourer is as yet, by the quantity of unoccupied land which still remains, protected from this deplorable result of the folly of his master, and, consequently, it is found, that, while the prices of articles of glass have declined in value at least fifty per cent. within a few years, there has been "a great uniformity of wages" during that period. "In 1808,"

^m See Table, No. I, at the end of this chapter.

ⁿ The system has been given up. See Vol. I, p. 936.

says Mr. Bakewell,^o "we sold common flint half-pint tumblers at two dollars per dozen; after the currency of the state became settled, we sold them at one dollar per dozen; and now we sell them at about eighty-one cents per dozen. Plain quart decanters, which, in 1808, we sold at six dollars per dozen, we now sell at two dollars and twenty-five cents. Wine glasses, in 1808, were one dollar and fifty cents per dozen, and they are now seventy-five cents per dozen."

Earthenware of the coarser kinds has long been manufactured in various parts of the Union; and, recently, the finest qualities of china ware have been attempted, and with considerable success.

The manufactories in the eastern and northern states not only supply those states with hats, but they send large quantities to the middle, southern, and western; and have nearly excluded the British hat-manufacturer from the market. It is only a few years since, that all who had any pretensions to gentility, purchased hats at eight or ten dollars each: these certainly were handsome, well-made beaver hats. Lately, however, other hats have been introduced, which at first look equally well with those expensive ones, and very few now purchase the high-priced hats. The amount of hats manufactured in the United States is stated to be 13,000,000 dollars annually.

Shoes and boots are made in great quantities, and may be purchased at very low prices, particularly in Massachusetts and New Jersey. Boots are sold wholesale at from two to three dollars per pair; shoes from three quarters to one dollar per pair. Many boots and shoes are made with wooden or copper pegs, with which, instead of stitching the soles, they fasten them together, and the price is rather less. The eastern export many shoes to the middle and southern states; the latter, indeed, are almost entirely supplied from thence, very few shoes being now imported from Great Britain, while the annual value of the boots and shoes manufactured in the United States is said to be 26,000,000 dollars.

All articles in wood, household-furniture, and carriages of all kinds, are executed in great variety. We have been surprised to find, however, that notwithstanding the beautiful descriptions of wood which the American forests yield, chairs, and other articles of domestic furniture, are, for the most part, painted. Articles of furniture are, in most instances, rather cheaper than in England.

Ship-building is carried on to a great extent. In some years, the amount of tonnage has equalled, if not exceeded, that launched in Great Britain; at any rate, the United States are second only to ourselves in this noble art.^p In steam-boats, or, more properly, steam-ships, they far outstrip us, their mighty internal waters affording such admirable scope for these vessels. It is said that upwards of thirty have been built this year between Pittsburgh and Louisville alone, in addition to

^o Report of the Committee on Manufactures, 1828, p. 149.

^p The Americans may be excused for deeming the British second to themselves.

250 already employed in navigating the Mississippi, or its tributary streams. The magnitude of these vessels bears full proportion to their number, some of them consisting of three stories, containing a variety of apartments, and making up 200 beds. In 1830, the amount of tonnage of steam-boats was 54,036 tons.

The manufacture of paper, type, and books, is scarcely surpassed by that of any equal number of inhabitants in the world. Of the first of these, there are many very extensive manufactories; and type foundries exist in many of the principal towns. One is found in the west, where, only fifty years ago, a settlement was scarcely made. The daily and weekly periodicals consume a large quantity of paper, being estimated at nearly a thousand. The principal publications will claim our attention as connected with literature, more emphatically than with manufactures. A duty equal to the price of the paper is placed on foreign books, an error of policy we hope soon to see erased from the statutes of the United States. A duty of one-fourth the amount (*3d.* per pound) would be amply sufficient to secure to American publishers the reprint of all works, the demand for which was sufficient to justify the expense of their being reprinted; so that the present duty has the sole effect of raising the price, and, in many cases, denying possession of a variety of English works to the American public, without any corresponding advantage to their manufactures. There are many works on particular branches of mechanical science, for instance, of which comparatively few copies are printed even in England, and the free circulation of which in the United States cannot be otherwise than an important advantage, but which is prevented by the present state of the revenue laws. Even if the interests of the American printers should for a moment sustain a slight disadvantage, the writer has far too high an opinion of their patriotism to suppose they would suffer that fact, in the slightest degree, to retard the intellectual progress of their country.

Distillation is extensively, we fear too extensively, carried on in the United States. Some of the distilleries work entirely from molasses, others from grain; the former is distilled into rum, and the latter generally into gin and whisky. These articles,—whisky, gin, and rum, are sold wholesale by the distillers at from thirty-seven and a half to fifty cents per gallon, or about *1s. 9d.* to *2s. 3d.* per gallon sterling. When cider is made, a considerable quantity is fermented, and distilled into what is called apple-brandy: this is sold at the same price as American gin. Peaches are also fermented, and distilled into what is termed peach-brandy; the wholesale price is from a half to three-quarters of a dollar per gallon. More than thirty millions of gallons of ardent spirits are annually distilled and consumed in the United States. A considerable check has been given to this manufacture, and numerous distilleries have been closed, by the exertions of temperance societies, whose operations will require notice in a subsequent section of the work.

The minerals of the United States, the procuring and smelting of which is a species of manufacture, besides iron and coal, are lead and copper.¹ The first is found in considerable quantities in several parts of the Union. In the Huron country, when the mines had only been worked three years, under every disadvantage, thirty millions of pounds of lead had been produced. Only about a mile square of surface had then been opened, and from this, thirty millions of pounds more might be extracted without opening a new mine. The whole of the lead district occupies a surface one hundred miles square, including, however, a district of copper ore about twenty miles long, and four or five broad. Mines of lead and copper abound also on the Missouri. The quantity of lead produced at the United States lead mines, annually, from 1823, to the 30th of September, 1829, is exhibited in the following table:—

	Fever River.	Missouri.	Total.
	Pounds.	Pounds.	Pounds.
To 30th of September, 1823.	335,130	. . . .	335,130
To " " 1824.	175,220	. . . .	175,220
To " " 1825.	664,530	386,590	1,051,120
To " " 1826.	958,842	1,374,962	2,333,804
To " " 1827.	5,182,180	910,380	6,092,560
To " " 1828.	11,105,810	1,205,920	12,311,730
To " " 1829.	13,343,150	1,198,160	14,541,310
Total pounds	31,764,862	5,076,012	36,840,874

The quantity of the various manufactures exported throws considerable light on their progress and present state; but the statements illustrative of that subject connect themselves more properly, and indeed inseparably, with commerce, and will form the materials of a considerable portion of the following chapter. From them it will be evident that several important articles, which, a few years since, were articles of import only, are already become exports of a very considerable amount.

The first table appended to this chapter exhibits a comparative view of the several tariff laws which have been enacted in the United States; and the second shews more precisely the size and value of which the several articles of manufacture must be, to come within the respective gradations of duty.

¹ The gold mines of the Carolinas and Georgia have been noticed in Book ii. Chap. ii., where, also, will be found particulars respecting lead, copper, mercury, iron, coal, &c

TARIFF.—TABLE I.

A COMPARATIVE VIEW OF THE TARIFF LAWS.

PROTECTING TARIFF OF 1828.	PROTECTING TARIFF OF 1824.	OLD TARIFF up to 1824.
Iron, in bolts or bars, not rolled, 1 cent per lb	90 cents per cwt. or 112 lbs. ..	75 cents per 112 lbs.
—, rolled, also in slabs, blooms, and loop, or otherwise, except pigs and cast iron, \$37 per ton	\$1 50 c. per cwt.	\$1 50 c. per cwt.
—, in pigs, 62½ cents per cwt.	50 cents per cwt.	50 cents per cwt.
Wire, of iron or steel, not finer than No. 14, 6 cents, finer than No. 14, 10 cents	Not finer than No. 18, 5 cents; finer, 9 cents	Not finer than No. 18, 5 cents; finer, 9 cents.
Round iron, or braziers' rods, $\frac{3}{8}$ to $\frac{1}{2}$ inch, nail or spike rods, iron in sheets or hoops, and slit or rolled for bands, casement rods, $\frac{3}{4}$ cents per lb	3 cents per lb	\$2 50 c. per cwt.
Axes, adzes, drawing knives, cutting knives, sickles or reaping hooks, sithes, spades, shovels, squares of iron or steel, bridle-bits, steel-yards, scalebeams, socket chisels, vices and wood screws, 10 per cent. additional	Wood screws, sickles, sithes, spades, 30 per cent.; all other manufactures of iron, 25 per cent.	20 per cent.
Steel, \$1 50 c. per cwt.	\$1 per cwt.	\$1 per cwt.
Lead, in pigs, bars, or sheets, 3 cents per lb	2 cents per lb	1 cent per lb.
— shot, 4 cents per lb	3½ cents per lb	2 cents per lb.
—, red or white, dry or ground in oil, 5 cents per lb	4 cents per lb	3 cents per lb.
— pipes, 5 cents per lb	25 per cent.	20 per cent.
Litharge, orange mineral, and sugar of lead, 5 cents per lb	15 per cent.	15 per cent.
Wool, (the same if on skins,) 4 cents per lb and 40 per cent. ad valorem until June 30, 1829, then 5 per cent. increase annually to 50 per cent.	Costing not more than 10 cents, 15 per cent.; higher cost, 30 per cent.	15 per cent.
Woolens, (wholly or in part,) except carpeting, blankets, worsted stuffs, bombazines, hosiery, mits, gloves, caps, and bindings, the value of which, at the place whence exported, (except flannels and baizes,) does not exceed 33½ cents per square yard, to pay 14 cents per square yard; from 33½ to 50 cents, to be estimated at 50 cents; from 50 cents to \$1, at \$1; from \$1 to \$2½, at \$2½; from \$2½ to \$4, at \$4, and to be charged with 45 per cent. duty; and exceeding \$4 to be charged with 50 per cent.; and all unfinished woolens are to be estimated at the same value as if finished	Costing less than 33½ cents per square yard, 25 per cent.; all others 33½ per cent. ad valorem, on actual value or cost	25 per cent.
Woolen blankets, 35 per cent.	25 per cent.	15 per cent.
Hosiery, mits, gloves, and bindings, 35 per cent.	33½ per cent.	25 per cent.
Clothing ready made, 50 per cent.	30 per cent.	30 per cent.
Brussels, Turkey, and Wilton carpets, 70 cents per square yard	50 cents per square yard	25 per cent.
Venetian and ingrain carpeting, 40 cents per square yard	25 cents per square yard	25 per cent.
All other carpeting, of wool, hemp, or cotton, or in part of either, 32 cents per square yard	20 cents per square yard	25 per cent.
Patent printed or painted floorcloths, 50 cents per square yard; other oilcloths 25 per cent.; furniture oilcloths, and floor matting of flags or other materials, 15 cents per square yard	30 per cent.	30 per cent.
Hemp, \$45 per ton, and \$5 additional annually, from June 30, 1829, until \$60	\$35 per ton	\$30 per ton.
Flax, \$35 per ton, and \$5 in addition annually, from June 30, 1829, until \$60	15 per cent.	15 per cent.
Cotton bagging, 5 cents per square yard	32 cents per square yard	20 per cent.
Sail duck, 9 cents per square yard, and ½ cent additional yearly, from 1829, until 12½ cents, and no drawback on less than 50 bolts in one shipment	15 per cent.	Russia, \$2 ps.; Ravens: \$1½; Holland, \$4.
Distilled spirits, 15 cents per gallon additional on the duties of 1824	From grain, 1st pf. 42 cents per gallon .. 38 cents. 2nd „ 45 ditto ditto .. 38 „ 3rd „ 48 ditto ditto .. 42 „ 4th „ 52 ditto ditto .. 49 „ 5th „ 60 ditto ditto .. 57 „ higher 75 ditto ditto .. 70 „	From other materials, 38 cents. 38 „ 42 „ 49 „ 57 „ 70 „
Indigo, 5 cents additional from June 30, 1829, to June 30, 1830, and 10 cents additional per annum, until the whole duty shall be 50 cents	15 cents	15 cents.
Molasses, 10 cents per gallon, and no drawback on the exportation of spirits distilled therefrom	5 cents per gallon	5 cents per gallon.
Manufactures of silk from beyond the Cape of Good Hope, 20 per cent. after June, 1829	25 per cent.	15 per cent.
Window glass, larger than 10 by 15, and in sheets uncut, \$5 per 100 feet shall, with the addition of 20 per cent. if beyond the Cape of Good Hope, and 10 per cent. if from other places, be deemed to have cost 35 cents per square yard, and be charged with 25 per cent.	\$4 per 100 feet.	\$3 25 cents.
Apothecaries' phials, not exceeding 6 oz. \$1 per 75 gross	\$1 a \$1 25 cents	20 per cent.
Slates for building, not larger than 12 by 6 inches, \$4 per ton; 12 to 14 inches long, \$5; 14 to 16, \$6; 16 to 18, \$7; 18 to 20, \$8; 20 to 24, \$9; larger, \$10	25 per cent.	15 per cent.
Slates for schools, 33½ per cent.	15 per cent.	15 per cent.
Cotton cloths, (except nankeens direct from China,) of whatever cost, shall, with the addition of 20 per cent. if beyond the Cape of Good Hope, and 10 per cent. if from other places, be deemed to have cost 35 cents per square yard, and be charged with 25 per cent.	Minimum under some conditions, 30 cents, with 25 per cent. duty	25 per cent.

TARIFF.—TABLE 11.

IMPORTATION OF DRY GOODS UNDER THE NEW TARIFF LAW.

A TABLE SHOWING WHAT DESCRIPTION OF GOODS MAY BE IMPORTED UNDER THE TARIFF PASSED BY THE CONGRESS OF THE UNITED STATES, MAY, 1828.

WOOLLENS, (except Flannels and Baizes,) 33½ Cents minimum, Duty 14 Cents per Square Yard.

Width.	Net Cost, 1828.	Net Cost, 1827.
24 in. 1s. 0d. stg.	37½ cts. per yd.	36 cts. per yd.
27 " 1 1½ "	42 " "	40 " "
30 " 1 3 " "	46½ " "	44 " "
33 " 1 4½ "	51 " "	49 " "
36 " 1 6 " "	56 " "	53½ " "
45 " 1 10½ "	69½ " "	67 " "
54 " 2 3 " "	83½ " "	80½ " "

BROADCLOTHS, KERSEYMERS, PELISSE CLOTHS, KERSEYS, FOREST CLOTHS, VALENTIA AND WOOLLEN VESTINGS AND FLANNELS, 50 Cents minimum, Duty 45 per Cent. ad valorem.

Width.	Net Cost, 1828.	Net Cost, 1827.
24 in. 1s. 6d. stg.	57 cts. per yd.	53½ cts. per yd.
27 " 1 8½ "	63½ " "	60 " "
30 " 1 10½ "	70½ " "	67 " "
33 " 2 0½ "	77 " "	74 " "
36 " 2 3 " "	84½ " "	80½ " "
54 " 3 4½ "	127 " "	120½ " "

FLANNELS, Duty 45 per Cent.

Width.	Net Cost, 1828.	Net Cost, 1827.
27 in. £3 17 6	829 09	816 12
28 " 4 0 6	30 23	28 84
29 " 4 3 0	31 21	29 74
30 " 4 6 0	32 33	30 82
31 " 4 9 0	33 44	31 89
32 " 4 12 0	34 56	32 97
33 " 4 14 6	35 53	33 86
34 " 4 17 6	36 65	34 94
35 " 5 0 0	37 75	36 02
36 " 5 3 6	38 87	37 09

27 in.	2 5 0	20 09	17 20	
	2 8 0	21 76	18 28	
	2 11 0	22 59	19 35	\$7 59
	2 14 0	23 42	20 42	
	2 17 0	24 26	21 50	
	3 0 0	25 09	22 58	
	3 3 0	26 78	23 65	
	3 6 0	27 60	24 73	
	3 9 0	28 44	25 80	
	3 12 0	29 28	26 88	
	3 15 0	30 10	27 95	
	3 18 0	30 94	29 03	
	4 1 0	31 78	30 10	
	4 4 0	32 33	30 82	

BROADCLOTHS, KERSEYMERS, &c. \$1 minimum, Duty 45 per Cent.

Width.	Net Cost, 1828.	Net Cost, 1827.
24 in. 3s. 0d.	81 13 81	07½ per running yd.
27 " 3 4½ "	1 27	1 20½ "
30 " 3 9 "	1 41	1 34 "
33 " 4 1½ "	1 55	1 47½ "
36 " 4 6 "	1 69	1 61½ "
54 " 6 9 "	2 53	2 42 "

BROADCLOTHS, KERSEYMERS, &c., \$2 50 Cents minimum, Duty 45 per Cent. ad valorem.

Width 27 inches	£0 8 5	
" 31½ "	0 9 10	
" 36 "	0 11 3	
" 54 "	0 16 10	
" 63 "	0 19 8	

Must not exceed these prices per running ard.

BROADCLOTHS, \$4 minimum, Duty 45 per Cent.

Width 54 inches	£1 7 0	
" 63 "	1 11 6	
" 72 "	1 16 0	

Must not exceed these prices per running yard.

Woollen Blankets, Woollen and Worsted Hosiery, Gloves, Bindings, and Mitts, to pay a Duty of 35 per Cent. ad valorem.

Brussels, Turkey, and Wilton Carpets and Carpeting, 70 Cents per Square Yard.

Venetian and Ingrain Carpets and Carpeting, 40 Cents per Square Yard.

Cotton Goods, if they do not cost 35 Cents per Square Yard, including the addition of 10 per cent., must pay a Duty of 8½ Cents per Square Yard.

Worsted Stuff Goods, Bombazines, Linens, Lawns, Linen Diapers and Cloths, Cotton Braces, Cotton Hose, Silk and Leather Gloves, Sewing Cottons, Tapes, Small Wares, &c., pay the same Duty as they did previous to 1828.

NET COST TO IMPORT THE FOLLOWING GOODS.

Width.	Net Cost, 1828.	Net Cost, 1827.
24 in.	0s. 9d. stg.	30½ cents
	0 10 " "	32½ " "
	0 11 " "	35 " "
	1 0 " "	37 " "
27 in.	0 9 " "	31½ " "
	0 10 " "	33½ " "
	0 11 " "	36 " "
	1 0 " "	38 " "
	1 1½ " "	42 " "
30 in.	1 6 " "	58½ " "
	1 7 " "	60½ " "
	1 8 " "	63 " "
	2 6 " "	1 03 " "
	2 8 " "	1 07 " "
	2 10 " "	1 12 " "
	3 0 " "	1 16½ " "
	3 2 " "	1 21½ " "
	3 4 " "	1 26 " "

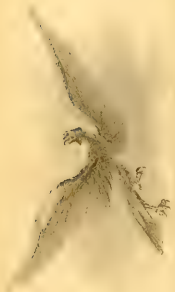
Plains or paddings.

Plains or paddings.

Kerseys and Forest Cloths.



CAPITOL OF THE UNITED STATES, WASHINGTON



WASHINGTON, D.C. FOR THE U.S. GEOLOGICAL SURVEY, 1871.

THE U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C.

CHAPTER III.

COMMERCE AND NAVIGATION.

COMMERCE has frequently, in the history of nations, evinced the rapidity of its growth, as in the case of Venice, Holland, and Great Britain; but in no instance has its progress been more remarkable than in that of the United States. It will not be necessary to insert any details respecting the state of commerce while the Americans were under the colonial yoke, since, under the commercial laws then existing, the energies of the colonies were as much as possible repressed, except in subserviency to the interests of the mother-country. During the war of the revolution, the degree of traffic which had previously existed was, of course, suspended; and after the peace of 1785, commerce still laboured under peculiar difficulties. The chief of these resulted from the political constitution which the thirteen "sovereign states" had thought fit to adopt. This subject has already been referred to as affecting the manufacturing interest; but the introduction of some additional particulars, illustrative of its bearing on commerce, will not be deemed unnecessary. The original constitution did not admit of the imposition of any duties by the congress, without the unanimous vote of all the states; while the right which was thus shackled as it respected the general government, was accorded to each of the separate states. It is not, therefore, matter of surprise that some of the states should have acted in opposition to others, as their interest might dictate. When the state of Pennsylvania laid a duty on foreign merchandise imported, the state of New Jersey, equally washed by the waters of the Delaware river, admitted the same articles free of duty; and they could easily be smuggled into one state from the other. The several states laid different rates of duty on foreign tonnage; in some, one shilling sterling per ton was imposed on vessels, which in other states paid three shillings sterling per ton. Such was the misunderstanding amongst the several states, that there were no general commercial regulations, nor could the congress enforce any, while the opposition of any one of the states could prevent the passage of any act on the subject. The evil of this condition of affairs was flagrantly manifest, when, to provide a fund to discharge the public

debt, and to pay the arrears due to the soldiers who fought the battles of the revolution, it was proposed in congress, during the operation of the articles of confederation, to lay a duty of 5 per cent. ad valorem, on foreign merchandise imported into the United States, and the opposition of the state of Rhode Island was of itself sufficient to defeat this plan.

The nations of Europe were well pleased to avail themselves of the embarrassed condition of the United States; for even those who had assisted them in their struggle for independence, now viewed them with a jealous eye as competitors in the field of commerce; and when, soon after the peace, the republic endeavoured to negotiate treaties of commerce with Great Britain, France, Spain, and Portugal, the offer was in each case met with a refusal. The conviction that this portion of their federal constitution required amendment, was one of the principal reasons which induced the people of the United States to call a convention for its revision. Happily, the convention, when assembled, concurred in the necessity of an alteration on this point, and the new constitution contained the following clauses:—"Art. I. Sect. VIII. To regulate commerce with foreign nations, and among the several states, and with the Indian tribes.—Sect. IX. No tax or duty shall be laid on articles exported from any state. No preference shall be given by any regulation of commerce or revenue to the ports of one state over those of another: nor shall vessels bound to, or from, one state, be obliged to enter, clear, or pay duties in another.—Sect. X. No state shall, without the consent of the congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts, laid by any state on imports or exports, shall be for the use of the treasury of the United States; and all such laws shall be subject to the revision and control of the congress." Not long after the new constitution had been adopted, the secretary of state proposed a liberal system of policy, in relation to commercial intercourse with other nations. His views were detailed in a report, made in answer to a resolution of the House of Representatives, of the 23d of February, 1791. Strongly advocating a free commerce with every nation, the secretary thus expressed himself:—"Instead of embarrassing commerce under piles of regulating laws, duties, and prohibitions, it should be relieved from all its shackles in all parts of the world. Would even a single nation begin with the United States this system of free commerce, it would be advisable to begin it with that nation."

These domestic arrangements had a very favourable influence on American commerce; but a new and most extensive field for it was now opened by the circumstances which transpired in Europe. "The wars consequent on the French revolution created a demand for our exports," says Dr. Seybert, "and invited our shipping for the carrying trade of a very considerable portion of Europe; we not only carried the

colonial productions to the several parent states, but we also became the purchasers of them in the French, Spanish, and Dutch colonies. A new era was established in our commercial history; the individuals who partook of these advantages were numerous; our catalogue of merchants was swelled much beyond what it was entitled to be from the state of our population. Many persons who had secured moderate capitals from mechanical pursuits, soon became adventurous; and the most adventurous became the most wealthy, and that without the knowledge of any of the principles which govern commerce under ordinary circumstances. No one was limited to any one branch of trade; the same individual was concerned in voyages to Asia, South America, the West Indies, and Europe. Our tonnage increased in a ratio with the extended catalogue of the exports; we seemed to have arrived at the maximum of human prosperity; in proportion to our population we ranked as the most commercial of nations; in point of value, our trade was only second-to that of Great Britain."^a

In 1790 the aggregate of exports was estimated at 19,012,041 dollars; in 1791 their value was increased by 1,741,057 dollars, or about one-eleventh of their amount in 1790. In 1792, the aggregate of the exports amounted to 26,109,572 dollars; the addition in the course of this year was 5,356,474 dollars, or more than one-fifth of their total value in the preceding year. In 1793, the exports were estimated at 33,026,233 dollars, or they were augmented considerably above one-fourth of their amount in 1792. The value of the exports increased with the progress of the war in Europe; this effect was common to the domestic surplus products and to the foreign merchandise re-exported. Prior to 1795, there was no discrimination at the treasury department of the value of the domestic and foreign merchandise exported from the United States. In 1795, the aggregate value of the merchandise exported was estimated at 67,064,097 dollars; of this amount the domestic productions were estimated at 40,764,097 dollars, and the foreign produce re-exported at 26,300,000 dollars. In 1796, the foreign merchandise re-exported was only 2,850,208 dollars less in value than that of the domestic exports; in 1797, the foreign merchandise exceeded the value of the domestic exports by 4,472,903 dollars; during several of the succeeding years, the value of the foreign merchandise exported greatly surpassed that of the domestic articles, and, in 1806, was estimated at 59,643,558 dollars, or it exceeded the value of the domestic exports by more than one-fifth, or 22.47 per cent. In 1805, the foreign merchandise re-exported arrived at the maximum, and amounted to 60,283,236 dollars, and in that year exceeded the value of the domestic productions exported in any one preceding or succeeding year, 1816 and 1817 excepted. The periodical progress of the export trade is exhibited by the following statements, viz. :--

^a Seybert's Statistical Annals of the United States, p. 61.

	Dollars.
Total value of the exports from the United States, in 1795.....	67,064,097
Ditto ditto, 1790	19,012,041
Increase in five years	<u>48,052,056</u>
Total value of the exports from the United States, in 1800	94,115,925
Increase in ten years	<u>75,103,884</u>
Total value of the exports from the United States, in 1805.....	101,536,963
Increase in fifteen years.....	<u>82,524,922</u>
Total value of the exports from the United States, in 1806, when they arrived at the maximum	108,343,150
Increase in sixteen years	<u>89,331,109</u>

This astonishing progress could not fail to attract the attention, and to excite the commercial jealousy of the principal nations of Europe; and the war at this time raging between England and France was carried on not only by military and naval armaments, but by commercial codes of restriction and prohibition, by which the Americans, as a neutral power, were more seriously injured than either of the belligerents. Indeed between the years 1804 and 1807 inclusive, above 1000 American merchant vessels were captured, by nations professedly at peace with the United States, for alleged breaches of blockade, or of commercial decrees. Under these circumstances, the government of the United States, at the close of the year 1807, resorted to an embargo to prevent the destruction of the mercantile navy, which was continued till March, 1809. Thus the export trade of the United States, after having, in the course of sixteen years, from 1790 to 1806, acquired an augmentation of 89,331,109 dollars, was, in 1807, in an instant, reduced to the aggregate of 22,430,960 dollars, only 1,677,862 dollars more than the amount in 1791, the second year after the organization of the present government. After the embargo was taken off in 1809, commerce speedily revived, and during that and the following year the amount of exports, so far as related to domestic products, was greater than the average of the ten years from 1802 to 1812. Subsequently to the declaration of war with Great Britain the export trade of the United States was of course materially and progressively depressed, till, in the year 1814, it did not amount to seven millions of dollars. At the conclusion of the war the exports rose, in 1815, to fifty-two millions; in 1816, to eighty-one; in 1817, to eighty-seven; in 1818, to ninety-three. From 1819 to 1824, the amount ranged between sixty-five and seventy-five millions, the average being above seventy; but, in 1825, the amount of exports again rose to nearly one hundred millions of dollars. From the year 1826 to

1830, the exports constantly ranged from seventy to eighty millions; the exports of foreign goods had declined materially, the amount for the year 1830 being little more than fourteen millions, a smaller amount than any year since 1803, except that of the embargo, and those of the war, while the domestic exports are nearly sixty millions, an amount exceeding those of any preceding year, since the establishment of the republic, except the years 1816, 17, 18, and 25.

The official returns presented to congress divide the exports into four classes: those of the sea, the forest, agriculture, and manufactures. The following is a summary of the exports of the year 1830; the details will be found in Table, No. I., at the close of this chapter. The products of the sea, consisting of the results of the whale, cod, mackerel, and herring fisheries, exported mostly from the northern states, amount to 1,725,270 dollars, being nearly a thirty-fifth part of the whole domestic export. About one-third of this value consists of codfish, and more than half of the products of the whale-fisheries.

The value of skins, furs, ginseng, lumber, staves, bark, tar, pitch, rosin and turpentine, and pot and pearl ashes, partly from the northern, and partly from the southern states, which were formerly of much greater comparative importance in the trade of the country, now constitutes nearly one-fifteenth part of the whole value of the domestic exports, and amounts to 4,192,040 dollars. A large proportion of the trade in these articles, as well as in those of codfish and broad-stuffs, is carried on with the West Indies, Mexico, and South America. The skins and the furs go to Europe and Canton, the ginseng to Canton, but in less quantity than formerly, and the pot and pearl ashes are sent to England and France.

The chief amount, however, of articles of export consists, as would naturally be supposed, of the products of agriculture. The article of cotton alone furnishes nearly half the amount of the whole exports of the United States, being, for the year 1830, 29,674,883 dollars. The next article in importance of export is wheat, either as grain, flour, or biscuit, the amount being 6,320,617 dollars. The third in amount is tobacco, 5,586,365 dollars; the fourth, rice, 1,986,824 dollars; the fifth, the produce of swine, including pork, bacon, and live hogs, 1,315,245 dollars. Three of the most important of these articles, (cotton, tobacco, and rice,) amounting collectively to 37,248,072 dollars, are the produce of the southern states, including Virginia and Kentucky. The other agricultural exports, namely, beef, tallow, hides and cattle, butter, cheese, horses, mules, sheep, rye-meal, oats, potatoes and apples, flax-seed, and hops, are mostly furnished by the middle and western states. Cattle, and their products, including butter and cheese, amounted to 860,053 dollars. This species of export is of far less comparative importance than formerly, being limited to its present amount, not by the capacity for production, but by the extent of demand in the foreign markets; an increase of the foreign demand would very

soon double and treble the quantity. Some of the articles comprehended in the above list, though agricultural products, yet involve some process of manufacture; such, for example, as butter, cheese, bacon, flour, biscuit, meal, and part of the tobacco. A great many, however, of the exports coming under the head of manufactures include in them the value of materials supplied by agriculture, such as the cotton fabrics, those of leather, and spirits distilled from grain; so that, on the whole, the strictly agricultural products of the country constitute a larger proportion of the whole exports than the tables represent; and, if we add the value of the materials supplied by agriculture for the manufactured exports, we shall have at least six-sevenths of the whole domestic exportation consisting of the raw products of agriculture.

The total amount of manufactured articles exported from the United States, in the year 1830, was estimated in the official returns, at 6,258,131 dollars, being rather more than one-tenth of the domestic exports of the country; about 930,000 dollars should, however, be struck out of the list of domestic imports, being gold and silver coin, consisting mostly of metals imported from abroad, and, after being coined at the mint, again exported. The labour put upon these materials, in coining, is so inconsiderable a part of their value, that the amount of the coin of country exported ought not to be included in the estimate of the value of manufactured exports. Considerable quantities of gold, it is true, have been produced in North Carolina, but by no means enough, as yet, to supply the demand for the consumption of the country, though it is to be considered, at the same time, that this article, as far as it is supplied from the domestic mines, will be chiefly exported, being drawn into this channel by the higher price of gold, as compared with silver, in England and France than in the United States. Some of it is arrested for use in jewellery and the arts, but very little in the currency, or in the vaults of the banks. As cotton fabrics also form a large item in this list of exported manufactures, and those fabrics are mostly of the coarser kind, the raw material will constitute a very considerable part of their value, and the proportional value of the direct wages of manufacturing labour incorporated in these exports will be proportionately less. If, for instance, a plough, or trunk, or quantity of combs, be sent abroad, almost the whole value of the export consists of the wages of the manufacturers; and a still greater proportion of the value of earthen and stone wares, which make a very considerable item in this list, is of this description; whereas an export of spirits distilled from West India molasses comprises a comparatively small proportional value of manufacturing labour. Taking the whole list of domestic manufactured articles together, and making allowances for the cost of the raw materials in their rudest state, after they are taken from the ground or from animals, and assume the character of merchandise, by deducting their value from the gross amount of that of the exported manufactures, the remainder,

which is the result of the manufacturing labour, interest of capital, and profits incorporated into these materials, to bring them into the state in which they are exported, may be estimated at about 4,000,000 dollars. Of the articles of export on which the arts of the United States are employed, the most considerable are cotton twist, thread, and fabrics, the exported value of which for the year 1830 was 1,318,183 dollars, being more than one-fiftieth part of the whole domestic exports, the principal markets of which are South America, Mexico, and the Mediterranean. The value of leather and its various manufactures exported, is 375,250 dollars. Hats exported during the same year amount to 309,362 dollars, a very large sum, considering the short period during which this article has been sent to foreign markets. Soap and candles have long been supplied for the foreign markets, but have lately been on the decline, the amount for the year 1830 being 619,238 dollars. The various articles manufactured for the most part of wood, such as furniture, or of wood, leather, and iron, such as coaches and carriages, besides various agricultural implements supplied to the West Indies and South America, constitute an important branch of trade. The American glass begins to appear in the foreign markets: the value sent abroad in 1830 was 60,280 dollars, and it bids fair to be increased. The other exports consist of a variety of articles in small quantities, among which are, wearing apparel, combs and buttons, brushes, fire engines and apparatus, printing presses and types, musical instruments, books, maps, paper and stationery, and trunks. It is apparent from the above enumeration and estimates, that the manufactured articles of which the export is most considerable and the most flourishing, are those of which the raw materials consist mostly of cotton, wood, and leather.

The foreign articles imported and again exported from the country during the year 1830, amounted to 14,378,479 dollars. This transit trade thus appears to form a very important part of the American commerce. The principal foreign articles re-exported are cottons, coffee and cocoa, sugar, tea, wines, and hardware.

The imports of the United States are of great importance to the commercial interest of the world, but especially to that of Great Britain; and the regulations respecting their admission, as already referred to in connexion with manufactures, form the most prominent topic of discussion, as a domestic question, in the several states composing the republic.—It will therefore neither be uninteresting nor unimportant to exhibit a statement of the amounts of the principal imports, distinguishing the countries from which the greater portion of them are severally received. In doing so, we shall, with some slight deviations, follow the order observed in the annual statements of the secretary of the treasury made to congress, and take as the basis of our observations the statement of the year ending the 30th of September, 1830. The principal articles are manufactures of wool, cotton, silk, flax and hemp,

iron, tea, wine, and earthenware; also raw hides and skins, and gold and silver: there are, however, considerable quantities of a great variety of other articles, the produce or manufacture of the different nations of the globe. The information which the following statements contain, if attentively considered, will afford a more correct idea of the state of the inhabitants of the republic than the personal narration of any individual, however accomplished or intelligent, and however extensively he may have travelled. It must be borne in mind that the imports were consumed by a population scarcely amounting to thirteen millions, and in addition to a greater amount of domestic produce than is supplied by any corresponding amount of population.

The articles first noticed are those admitted free of duty—among these are philosophical apparatus, for the use of incorporated societies for the promotion of learning and science, to the amount of 9,830 dollars, imported in nearly equal proportions from England and France; books, maps, and charts, under the same conditions, to the amount of 19,621 dollars, more than three-fourths of which were from England, and the remainder about equally divided between France and Germany, the latter through the medium of the Hanse Towns; specimens of botany and natural history, to the amount of 6,118 dollars, from upwards of twenty different countries; models of inventions and machinery 897 dollars, almost exclusively from England; and anatomical preparations 274 dollars, from France. The fact that this class of articles is duty free, evinces a laudable attention on the part of the congress of the United States to the interests of science and literature; and we hope that no long period will elapse before every production connected with their advancement, not only in the recognised institutions of the country, but in the pursuits of individuals or families, will be accessible on the same terms. We deem it a sound and incontrovertible principle, that the improvement and expansion of the national mind ought not to be impeded or delayed, either for the revenue of government, or for the gain of individuals. To act on a contrary principle is bartering that which is beyond all price.

The remaining articles which are admitted without payment of duty are either articles derived from mining or from agriculture, which the United States do not produce in sufficient quantities; or of manufactures in which they do not excel. We can only mention a few of the principal of them, referring our readers for the particulars of the remainder to Table IV. Furs were imported in 1830 to the amount of 305,782 dollars, of which, 205,090 dollars were from England; 64,584 dollars from the British American colonies; 19,363 dollars from France; and the remainder in small portions from nine other countries. Raw hides and skins constitute the largest amount of articles (with the exception of specie,) imported duty free, being, in 1830, 2,409,850 dollars, of which, 1,904,251 dollars are from the

states of South America; ^b 85,374 dollars from Hayti; and the remainder in portions, varying from 100 dollars to 60,000 dollars, from twenty other countries. Plaster of Paris is imported to the amount of 125,606 dollars, of which, 119,234 dollars were from the British American colonies, and the remainder from France. Dye wood to the amount of 279,411 dollars, of which, 161,634 dollars were from South America; 77,078 dollars from Hayti; and the remainder chiefly from the West Indies. Mahogany timber to the amount of 286,825 dollars, of which, 203,948 dollars were from Hayti; 28,917 dollars from Cuba; 25,018 dollars from the Central Republic of America; and the remainder chiefly from Mexico and the British West Indies. Of metals, tin was imported to the amount of 101,341 dollars, of which, 62,862 dollars were from England; 15,450 dollars from the Dutch East Indies; 5,960 dollars from China; 9,007 dollars from the Netherlands; 2,485 dollars from the British East Indies; and the remainder from Chili and Peru: copper is imported to a large amount, — 403,203 dollars in bars, 233,785 dollars in plates for the sheathing of ships, &c.; 14,435 dollars for the use of the mint, and 83,413 dollars of old copper to be remanufactured; of the former amount, 231,493 dollars were from Peru; 154,965 dollars from Chili; 14,700 from Colombia; and the remainder chiefly from the British American colonies: the amount for sheathing ships was almost exclusively from England, as was also that for the use of the mint. The amount of gold as bullion, imported in 1830, was 115,267 dollars, of which, 39,557 dollars were from Mexico; 33,022 dollars from Africa; 25,633 dollars from Peru; and 12,056 dollars from Colombia: the amount of gold, as specie, was 705,000 dollars, of which 131,852 dollars were from Colombia; 81,343 dollars from other countries of South America; 69,267 dollars from Cuba; 81,262 dollars from British American colonies, and the West Indies; 81,384 dollars from the Swedish West Indies; 78,534 dollars from the Danish West Indies; 76,356 dollars from the Dutch West Indies; 53,123 dollars from England; and the remainder in small amounts from various countries. The amount of silver imported is much larger than that of gold: the amount in bullion was 1,040,343 dollars; of which, 781,201 dollars were from Mexico; 159,735 dollars from Peru; 75,712 from other parts of South America; 18,719 dollars from Cuba; and the remainder from the Dutch and Danish West Indies, and the South Seas. The silver, in specie, imported in 1830, amounted to 6,285,475 dollars, of which, 3,860,936 dollars were from Mexico; 988,756 dollars from South America generally; 273,498 dollars from Cuba; 242,468 dollars from the French West Indies; 237,953 dollars from the British American colonies and West Indies; 161,452 dollars from the Danish West Indies; and the remainder from all other parts of the world.

^b In these statements it is found convenient to regard Mexico as one of the South American states, as it is generally included in that appellation by Americans in their commercial transactions.

The total amount of articles admitted duty free, in 1830, was 12,746,245 dollars, of which, considerably more than half, however, was gold and silver; of the remainder, raw hides and skins constituted more than three-sixths, or nearly one-fourth of the whole amount of articles imported duty free; copper about one-sixth; furs, dye wood, and mahogany, one-sixth; the remaining sixth being divided among miscellaneous articles the particulars of which will be found in the Table IV.

It cannot fail to have struck our readers, that, when the gold and silver are deducted, the amount of articles admitted duty free bears an extremely small proportion to the whole amount of imports; and it will appear in the sequel, that duties of a greater or less degree have been imposed, not only on all articles which could be procured in sufficient quantities or could be manufactured in America, but upon those, also, where there could not possibly be at present any international competition. It is, therefore, probable that duties of the latter kind will be remitted, when, the public debt being discharged, the revenue arising from them will not be required; though but little expectation can exist that the protection afforded to American manufactures will be diminished.

Of the imports subject to duty, the first, as to amount, is cotton, in its various forms of manufacture. It is hardly needful to state, that the great bulk of this article is supplied from England. The amounts from England, Scotland, and France, will be seen in the following table, which, with similar tables subsequently given of the principal articles of import, has been compiled from the treasury statement which appeared in the year 1830. The tables have been so arranged as to exhibit the information contained in that publication in a form more readily apprehended, and also to afford the additional information of the total amount of each article imported from the several countries named. They have also been condensed, by omitting the countries from which small amounts only have been imported.

	England.	Scotland.	France.	All other Countries.	Total.
COTTONS.	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Printed or Coloured	3,553,509	259,038	355,227	188,901	4,356,675
White	1,868,723	65,862	178,784	374,535	2,487,904
Hosiery, Gloves, Mits, Bindings, &c. .	201,783	4	4,001	181,666	387,454
Twist, Yarn, and Thread	141,212	26,899	693	3,981	172,785
Nankeens	23,658	—	2,078	202,497	228,233
All other Manufactures	96,572	2,786	79,204	50,813	229,375
Total from each country....	5,885,457	354,589	619,987	1,002,393	7,862,326

Of articles manufactured from wool, it will be perceived that France furnishes a considerable quantity, although bearing a very small proportion to that of England.

The importations from France consist chiefly of stuffs, and other light articles, in which their manufacturers excel those of England, and also some sorts of blankets.

WOOLLENS.	England.	Scotland.	Ireland.	France.	All other Countries.	Total.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Not exceeding 50 cents per square yard	418,324	3,604	8	25,098	5,709	452,743
Exceeding 50 cts. and not exceeding 100 cts. per sq. yd.	958,458	453	12	98,695	26,197	1,083,815
Exceeding 100 cts. and not exceeding 250 cts. per sq. yd.	1,137,370	1,726	6	68,166	28,792	1,236,060
Exceeding 250 cts. and not exceeding 400 cts. per sq. yd.	69,984	486	—	3,439	1,797	75,706
Exceeding 400 cts. per sq. yd.	5,890	—	—	—	125	6,015
Blankets.....	551,149	10	124	42,588	173	594,044
Hosiery, Gloves, Mitts, &c.....	124,116	91	3,794	1,040	4,412	133,453
Bombazines	22,906	—	—	10,927	54	33,887
Worsteds Stuff Goods	1,228,707	838	40	102,234	65,726	1,397,545
All other Manufactures	157,869	6,155	—	132,379	22,903	319,306
Not exceeding 33½ cts. per square yard	263,283	2,307	—	170	300	266,060
Total from each country....	4,938,056	15,670	3,984	484,736	156,188	5,598,634

About six-tenths of the silk used in the United States is imported from France, nearly two-tenths from China, rather more than one-tenth from England and the British East Indies, and the remainder chiefly from Italy. It will be apparent in this article, as in many others, that the inhabitants of the Union have an advantage over the nations of Europe in the opportunity of importing their manufactures from those countries which severally bring them to the highest perfection.*

SILKS.	England, &c.	British East Indies.	France.	China.	Italy.	All other Countries.	Total.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
From other pieces } Piece Goods	29,358	376,166	2,922	942,923	—	15,723	1,367,092
From other pieces } Other Manufactures.	—	—	—	28,756	—	2,458	31,224
From other pieces } Piece Goods	249,860	—	2,256,529	—	265,892	52,637	2,824,918
From other pieces } Other Manufactures.	119,701	—	1,291,849	—	89,545	49,681	1,550,776
Total from each country....	398,919	376,166	3,551,300	971,679	355,437	120,509	5,774,010

The importations of the manufacture of flax are from the northern nations of Europe; more than six-tenths from England, Scotland, and Ireland, two-tenths from the Hanse Towns, one-tenth from France, one-twentieth from Russia, and the remainder chiefly from the Netherlands, or through the medium of Cuba.

* It will perhaps raise the character of the inhabitants of the United States in the opinion of some of our fashionable coteries, if they are informed that French silks and Canton crapes are profusely worn in that country, even by the moderately gay; and that female dress is sometimes as splendid, and sometimes as ridiculous, in New York as in London.

MANUFACTURES OF FLAX.	England.	Scotland.	Ireland.	Hanse Towns.	France.	Russia.	All other Countries.	Total.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Linen	1,088,554	156,495	288,524	496,907	282,372	93,019	79,182	2,485,053
Checks & Stripes	23,028	2,750	—	16,923	—	—	24	42,725
Other Manufact.	170,295	185,481	606	20,855	9,137	88,350	8,778	483,502
Total from each country	1,281,877	344,726	289,130	534,685	291,509	181,369	87,984	3,011,280

Of the articles made from hemp, Scotland furnishes nearly half, Russia a quarter, England an eighth, and the remaining eighth comes chiefly from the Hanse Towns.

MANUFACTURES OF HEMP.	England.	Scotland.	Ireland.	Russia.	Hanse Towns.	All other Countries.	Total.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Ticklenburghs, &c.	79,846	400,070	4,046	—	79,663	40	563,665
Sheeting	9,138	—	—	241,098	—	1	250,237
Other Manufactures	28,642	95,635	—	3,225	5,517	84	133,103
Total from each country	117,626	495,705	4,046	244,323	85,180	125	947,005

Carpeting was imported during the year to the amount of 200,451 dollars, exclusively from Great Britain or her colonies; sail duck, to the amount of 317,347 dollars, of which 259,896 were from Russia, 28,485 from the Netherlands, 18,483 from England and Scotland, and 9,567 from the Hanse Towns; cotton bagging, to the amount of 69,126 dollars, of which 52,918 were from Scotland, 5,852 from England, and 10,345 from the Hanse Towns.

Travellers in the United States have expressed themselves surprised at the variety of foreign wines produced at the tables of the more wealthy inhabitants: when the various kinds included under the different heads of the following table are considered, the amateur in this luxury is left without a wish ungratified, except that of actual participation.

WINES.	England.	British E. Indies.	Portugal.	Gibraltar.	France.	Spain.	Italy and Malta.	All other Countries.	Total value.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Madeira	20,631	50,239	10,579	40	137	—	—	248,797	330,423
Sherry	29,263	100	—	1,276	—	38,124	3	781	69,547
Red of France and Spain	1	—	—	1,310	245,549	20,517	1,244	4,412	273,033
Of France, Spain, Germany, and Mediterranean, not enumerated	404	—	—	27,097	202,029	166,882	5,744	22,148	424,304
Of Sicily and all others not enumerated	15,203	355	84,321	3,309	187,443	5,231	44,685	97,248	437,795
Total from each country	65,502	50,694	94,900	33,032	635,158	230,754	51,676	373,386	1,535,102

However delicious the wines, the dessert would be incomplete without the fruits of various climates: but when, in addition to the melons, apples, peaches, pine-apples, oranges, and a hundred other fruits which are the domestic produce of different sections of the Union, are added all the varieties of foreign fruits, epicures, either of the city or west-end species, might partake of an American dessert without one serious regret, except, perhaps, that its flavour was destroyed by the *day-light*.

FRUITS.	England.	Gibraltar.	France.	Spain.	Cuba.	Italy and Malta.	Adriatic Ports.	Turkey, Levant & Egypt
	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>
Almonds	—	65,757	836,526	165,213	27,140	64,006	—	—
Currants	392,839	—	—	407	—	23,962	153,731	156,590
Prunes & Plums	—	21	70,139	14,576	2,139	—	—	—
Figs	41,238	1,169	313	111,151	39,991	1,669	—	1,423,759
Raisins	54,981	429,385	28,838	4,892,819	72,403	—	11,299	741,017
Total from each country....	489,058	496,332	935,816	5,184,166	141,673	89,637	165,030	2,321,366

By the quantity of spirits distilled in America, and the duty imposed on those coming from abroad, the quantity imported is reduced to a comparatively small amount. Of spirits manufactured from grain the amount imported is 205,704 dollars, of which, 183,551 dollars are from the Netherlands: of those distilled from other materials the total amount is 453,286 dollars, of which, 199,945 dollars are from the Danish West Indies, and 200,899 from France. The amount of molasses imported is 995,776 dollars, of which 666,238 dollars are from Cuba; 66,097 dollars from other Spanish West Indies; 154,833 dollars from the French West Indies; 72,549 dollars from the Dutch West Indies; while from the British West Indies, in consequence of the commercial regulations existing, the amount is only 1,239 dollars. Of beer, ale, and porter, the quantity is only 65,260, and the value 60,420 dollars: almost the whole comes from England and Scotland. If the price of English porter is 4s. 6d. per gallon, (more than five times the price of French wines,) the diminutive amount of the quantity imported cannot be matter of surprise.

The amount of tea consumed in the United States is very considerable, and, with exceptions scarcely worth mentioning, is imported direct from China. Of Bohea, 152,990lbs. only are imported; but of Souchong, and other black, 2,166,142lbs.; of Hyson and other green, 5,637,247lbs., and 653,036lbs. imperial; the whole value being 2,425,018 dollars. Considerable as is the import of tea, that of coffee is nearly double in value, and six times the amount in weight, being 51,488,248lbs., worth 4,227,021 dollars. Nearly sixteen millions of pounds are imported from Cuba,

fourteen millions and a half from Brazil, and more than eleven millions from Hayti,^d while the amount from the British West India Islands is only 57,632lbs.

The next article we have to notice is of a character very different from the preceding,—though not inferior to any in utility,—it is iron. In the variety of articles manufactured from it, this material is preeminent; and it will be seen that, almost without exception, the manufactured articles imported, from the needle to the sledge hammer, are from Great Britain; while, on the other hand, the chief importation of bar and bolt iron is from Sweden and Russia. No table more manifests the superiority of British skill, industry, and capital, over that of her competitors, than that respecting iron; and we apprehend this is almost the last point which will yield to foreign competition. The lighter manufactures of Great Britain may the sooner be superseded in the American market, because on these females labour, and from the decided aversion of the youth of that sex to domestic service, their labour may be brought to bear at a rate very little exceeding the pittance now paid to the English weaver; while, notwithstanding a protecting duty varying from twenty-five to one hundred per cent. on iron, it may be found impossible to exclude the foreign article on account of the high price in the United States of such labour as can only be performed by men.

IRON.	England, &c.	British Colonies.	Russia.	Sweden.	All other Countries.	Total.
<i>Subject to ad valorem Duties.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Side-arms and Fire-arms, other than Muskets and Rifles	98,248	12	—	—	80,893	179,153
Drawing-knives, Axes, Adzes, and Socket-chisels	26,998	9	—	—	—	29,007
Bridle-bits	62,253	—	—	—	16	62,271
Steelyards, Scalebeams, and Vices ..	30,899	—	—	—	—	30,899
Cutting Knives, Sithes, Spades, &c..	85,821	4	—	—	9,179	95,004
Screws	66,832	—	—	—	3	66,835
Other Articles	2,791,487	714	—	—	116,777	2,908,978
<i>Subject to specific Duties.</i>						
Muskets	10,824	38	—	300	13,980	25,142
Rifles	58	27	—	—	—	85
Iron and Steel Wire	59,326	54	—	—	105	59,485
Tacks, Brads, Nails, and Spikes	44,570	240	—	—	286	45,096
Chains and Cables	24,181	606	—	—	1,098	25,885
Mill Irons and Saws	12,252	200	—	—	—	12,452
Anchors	473	128	—	—	520	1,121
Anvils and Blacksmiths' Hammers ..	34,291	52	—	—	2	34,345
Castings, &c.	33,304	1,144	—	—	4,238	38,686
Rods	6,348	71	—	240	70	6,729
Sheets and Hoop	55,270	2,061	2,482	—	19	59,822
In Pigs	25,643	1	—	—	27,000	52,644
Bars and Bolts	243,802	1,767	541,445	1,148,604	21,093	1,956,711
Steel	233,200	97	—	6,499	52,161	291,957
Total from each country	3,948,080	7,225	543,927	1,155,643	327,342	5,982,307

^d We request the advocates of West Indian slavery to reconcile this authentic statement with their assertion, that since the blacks of Hayti had enfranchised themselves, they had ceased the cultivation of this plant, or, at least, did not carry it beyond their own immediate necessities.

Owing to the heavy duty, the amount of paper imported into the United States is very limited, being only 110,408 dollars; of this amount 36,025 dollars are from France; 36,654 dollars from Cuba; 16,208 dollars from England; and 10,168 dollars from Italy. It will be perceived that the articles are confined to letter paper, or mere fancy papers, there being no amount worth mentioning of printing or plate paper. We do not know that this duty has any unfavourable influence on the progress of knowledge, as paper is manufactured nearly as well, and quite as cheap, in the United States as in other country.

PAPER.	England.	France.	Italy.	Cuba.
	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>
Folio and 4to Post	6,682	24,746	14,669	—
Foolscap, Drawing and Writing	6,160	195,660	79,757	189,136
Printing, Copper-plate, and Stainers..	5	32	—	902
Binders and Wrappers	1,005	11,831	—	—
All other	20,113	11,038	766	2,507
Value in Dollars.....	16,208	36,023	10,168	36,654

It is with regret we perceive that the importation of books is so comparatively trivial—certainly the amount not at all corresponding with the mental demands of a prosperous republic, containing thirteen millions of inhabitants. The total amount from all foreign countries is only 130,632 dollars, of which 81,752 are from England, 34,262 from France, 7,075 from the Hanse Towns, 2,346 from the Netherlands, and 1,897 from Italy. We have already expressed our regrets and our hopes on the subject of the protecting duty which thus limits the importation of knowledge, and will only, therefore, repeat our firm expectation, that the impolicy of an impost so contrary to the peculiar characteristic of an age in which, by “running to and fro,” “knowledge is increased,” will speedily be discovered by the very class for whose sake it has been enacted, and who, were they less enlightened, might deem it a benefit to themselves, to be nothing less than a national injury.

BOOKS.	England.	France.	Italy.	Hanse Towns.	Cuba.	Netherlands.
Volumes .. { Printed previous to 1775	785	—	—	—	—	—
{ In other Languages, except English, Latin and Greek.....	2,178	67,433	1,999	9,348	1,790	4,198
In Pounds { Latin or Greek	2,712	1,636	74	3,407	—	42
{ All others (English)	79,478	2,191	58	122	54	—
Value in Dollars.....	81,752	34,262	1,897	7,075	474	2,346

Glass still continues to form an article of import, though to a very diminished amount. It is chiefly imported from Great Britain, France, and the Hanse Towns.

The Scotch proverb, that "many mickles make a muckle," has no better exemplification than in the import of cigars into the United States, which amounts to 251,818 dollars, of which 243,526 are from Cuba. Thus nearly double the amount of dollars is spent in smoke by the Americans, of that bestowed on works of English and other foreign literature. Surely it would be better to *protect* cigars, and leave knowledge free.

It only remains for us to notice a few articles of raw material which are imported into the United States. Hemp, to the amount of 200,338 dollars, almost exclusively from Russia; flax 39,055, of which 29,101 are from Russia, 8,604 from Prussia, and the remainder from the Netherlands; wool, to the amount of 96,853 dollars, of which 39,846 were from England, 20,329 from Turkey, the Levant, and Egypt, 13,932 from Spain, 8,594 from Portugal, 6,252 from the Hanse Towns, and the remainder from the British colonies and South America. Only a few years since, the American wools were an article of export to Great Britain; but a duty being placed on the importation of inferior wools, for the protection of the British farmer, (or, perhaps, more truly—and it is well to accustom ourselves to write the truth on all occasions—for the benefit of the British landholder), the Americans were forced to commence, though, at first, in the very rudest shape, the manufacture of woollens; and from this commencement the manufacture of that article has advanced, till it not only consumes all the American wool, but requires a large amount of import. The amount of this article imported for the year 1831, when the regular official accounts were published, it was found exceeded that of any former year.

Notwithstanding the abundance of salt and coal in America, they are both, to some extent, articles of import; of the former, upwards of five millions of bushels (value 671,979 dollars) have been imported, chiefly from Great Britain or her colonies; and of the latter, 1,640,295 bushels, (value 204,773 dollars) almost entirely from Great Britain and her dependencies.

The total amount of the imports for the year 1830 (70,876,920 dollars) exceeds that of the exports (63,849,508) by 7,027,412 dollars, or about ten per cent. There should, of course, be an excess of value of imports according to those returns, whether their value is estimated at the cost in foreign ports, or at the market-price in the American ports; for these goods are the returns for the exports, the value of which is estimated at the rate of the markets in the United States; and, unless a greater value of merchandise can be obtained in exchange in the foreign ports, the ship-owners would obtain nothing for outward freight: and still more ought the value of the imports in the American markets, after deducting duties, to exceed that of the exports, since this excess is the only fund for paying the two freights and interest on the capital employed. It can scarcely be doubted, that the estimated amount of the imports must be much under the real value; for the difference of ten per cent.

between the imports and exports would be utterly inadequate to renumerate the ship-owner and the merchant, especially as more than sixty-six millions of the imports are in American vessels, and less than five millions in the ships of other nations. With the world at large, therefore, there is no balance of trade against the United States, the real excess of imports being, in fact, only the profit of the parties who devote their capital, time, and skill to commerce. With separate countries, however, the balance is, in some cases generally against, and in others almost as uniformly in favour of the United States. With Great Britain, at the present time, the balance is considerably against the United States, and the rate of exchange is consequently ten per cent. in favour of Great Britain, which operates, to a considerable extent, as an additional duty on the imports of the latter country, as for every hundred pounds the American merchant has to remit, he can only procure bills on England at a premium of ten pounds.

The navigation of the United States, although so intimately connected with commerce, requires to be noticed separately. It is certainly a most important interest, not only as associated with the employment of a numerous class of individuals and a large amount of capital, but from considerations of a national and political character. It is only through their naval power, as combined with their commercial importance, that the United States can cause themselves to be respected by European nations; and it is manifest, that the adequate supply of hardy and well-disciplined mariners, in case of war, must most materially depend on the state of the commercial marine in times of peace. To foster and protect the naval interest was, therefore, naturally one of the earliest measures of the general government of the United States, after their independence had been established. While, as a necessary addition to the revenue, a duty of six cents per ton only was imposed on vessels of the United States, when entering any of her harbours from any foreign port, on all vessels belonging to foreign nations there was laid a duty at the rate of fifty cents per ton, with an addition of ten per cent. to the several rates of duty on merchandise brought into the United States, when not imported in ships or vessels thereof. The beneficial operation of this system, from the confidence it inspired in the estimation in which the government held the navigation of the country, from the protection afforded by it to an interest destined to be the great source of its revenue, and from its various relations to the industry, the commerce, the fiscal concerns, and the external defence of the republic, was soon made manifest by the resuscitation and rapid increase of the navigation of the United States which immediately ensued from the adoption of it, and which were, doubtless, produced in a good degree by these measures of protection, aided however by other causes, which soon after followed and cooperated with them. The discriminating duty was applauded by the merchants

of the United States, and by all those classes more immediately connected with its navigation; in addition to its effects on individual interests, and its countervailing influence on the duties imposed on American shipping in foreign ports, it required indeed little prescience to perceive, that, with an extended sea-coast of near two thousand miles, bordering a vast and fertile country, inhabited by an intelligent, brave, and enterprising people, the ocean was destined, at no distant period, to become one of the great sources, alike of their wealth and their industry—of their prosperity and their glory. The discrimination thus instituted between foreign vessels and those of the United States, with occasional alterations, dependent on the circumstances of the times, and the varying dispositions and conduct of other nations towards the republic, with a duty on foreign vessels of fifty cents per ton, as light-money, in 1804, have been continued to the present time, except with those powers with whom conventions or arrangements have been made for a reciprocal abolition, or suspension of them, in whole or in part.

That the increase of the navigation of the United States before alluded to, was as rapid and gratifying as it was unexpected and unexampled, is established by the fact, that the tonnage of the United States, which, in 1789, amounted to 204,998 tons, of which 127,329 were employed in the foreign, 68,607 in the coasting trade, and 9062 in the fisheries, had reached, in 1807 to 1,477,075 tons, giving, in that space of time, a sevenfold increase, whereof 1,116,241 were employed in foreign trade, 285,090 in the domestic trade of the country, and 75,744 in the fisheries. This very important expansion of the navigation of the United States, as before observed, emanated in part from the discriminating duties; while the unprecedented political circumstances of the times could not but also have a powerful influence in producing a result so desirable.

The French revolution, which commenced nearly contemporaneously with the adoption of the federal constitution, deranged for a series of years the mercantile operations of nearly all the navigating nations of Europe; and for long periods between the epochs of 1789 and 1807, left the United States as the only important neutral power traversing the ocean. Under these circumstances, the increase and employment of the shipping of the United States was favoured in a manner which could not, within the same compass of time, have been effected by any other causes; as the hazards of capture and the higher rates of insurance which attached to European vessels at that period in intercourse with the United States, greatly exceeded the influence of the discriminating duties, and served almost to extinguish, at least for a time, the freighting business of this country, and of other nations, in the vessels of the belligerents. But, in 1807, it became apparent that, amid the collisions of a world in arms, this state of unrivalled prosperity for the commerce and navigation of the United States was not to have a longer continuance; for aggressions

on their rights as a neutral nation, and depredations on the commerce of the United States by the more important of the maritime powers of Europe, multiplied so fast as to occasion the withdrawal, for a time, of American navigation from the ocean, and to give rise to those measures of resistance which issued in a war with Great Britain. At the conclusion of the war, it was the desire of the government of the United States to promote freedom of commerce among the nations of the earth upon a fair and equal footing, as conducive, by the friendly intercourse and interchange of commodities to which it would give rise, to their mutual advantage; they also felt confident that the vigour and maturity which the navigation of the republic had attained, would enable it successfully to meet a competition with that of other powers upon principles of reciprocity: the act of congress of March, 1815, repealing the discriminating duties on foreign vessels and vessels of the United States, and on goods imported therein, was therefore passed, abolishing the distinction and duties which previously existed, so far as regarded the vessels of those powers which reciprocated the same conditions to the United States. This act was confirmed by an act, passed January 7, 1824, extending the principle so far as to include within it those articles of produce and manufacture which could only be, or most usually are, first shipped from a port or place in Europe, when brought into the United States in the vessels of such nation, whether the articles be of its own produce or manufacture or not: the proffer of which conditions has been accepted by several of the powers of Europe.

Both the facts and the sentiments which we have just stated are, in substance and partly in words, those of the report of the committee made to the senate in the year 1826.* We are aware that the position has been strenuously maintained, that American navigation has been materially depressed by the enactment of the tariffs of 1824 and 1828. Mr. Cambreling, chairman of the committee of commerce appointed by the House of Representatives, in 1830, in a very long and very able report, takes this view of the subject;† but it appears to us, that, owing to circumstances which no longer exist, the commercial navy of the United States had engrossed more than its due proportion of foreign trade; of which, having so ample a field of employment both for labour and capital, they should be the less tenacious, especially as the amount of tonnage employed in the coasting trade and the whale fishery is decidedly on the increase. It would, however, certainly be desirable, that every diminution of the expense of fitting out vessels which can accrue from the reduction of duties on tonnage, &c. should be effected.

The tonnage of the registered vessels employed in foreign trade at the close of the year 1829 was 650,142 tons; enrolled and licensed vessels, including licensed

* Nineteenth Congress, First Session, Rep. No. 16.

† Ibid. No. 165.

craft under twenty tons, employed in the coasting trade, 508,858 tons; vessels employed in the whale fishery 101,796 tons; making a total of 1,260,797 tons. Of the registered tonnage, 57,284 tons were employed in the whale fishery; and of the tonnage reckoned as employed in the coasting trade, 54,036 tons were employed in steam navigation; a larger amount, we apprehend, than the tonnage of steam vessels in the aggregate of all other nations.

The tables annexed to this chapter have already been frequently referred to.—Table I. contains a statement of the value of the domestic exports of the United States from 1821 to 1830, inclusive; and so far as exports may be regarded as a test, exhibits the progress of the fisheries, the agriculture, and the manufactures of the republic, during that period. Table II. is a statement of the total value of exports, domestic and foreign, from 1790 to 1831; and though but a brief compendium, affords important matter for the economist and the politician: the figures opposite the years 1814 and 1825 stand as memorials of the evils of war and of excessive speculation. Table III. contains a statement both of the value and the destination of the exports, domestic and foreign, during the last ten years. The stream of American commerce, and the relative importance of each country to her markets are here exhibited. It is gratifying to perceive, that more than one-third of the exports of the United States are consumed by Great Britain.

Table IV. is a statement of the kind and value of articles imported into the United States during the year 1830, and will enable manufacturers or merchants to ascertain, with the minutest accuracy, the value of every class of articles imported into the United States. Table V. exhibits combined in one view the value of the imports and exports from each foreign country during the year 1830; and affords an opportunity of ascertaining the relative proportion of the imports and exports in each case. The large amount of commerce with the island of Cuba will not fail to attract observation. This table also contains the amount of the tonnage of American and foreign vessels engaged in conducting the commerce of the United States into the several nations of the world. It will be perceived, that in their transactions with Great Britain about three-fourths of American and one-fourth of British are employed; while, in the aggregate, the Americans continue to engross nearly seven-eighths of the tonnage employed in their commerce.

COMMERCE.—TABLE 1.

A SUMMARY STATEMENT OF THE VALUE OF EXPORTS, OF THE GROWTH, PRODUCE, AND MANUFACTURE OF THE UNITED STATES, FROM 1821 TO 1830, ENDING THE 30TH OF SEPTEMBER IN EACH YEAR.

	1821.	1822.	1823.	1824.	1825.
THE SEA.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
Dried fish, or cod fisheries	708,778	666,730	734,024	873,685	830,356
Pickled fish	264,813	249,108	270,776	263,019	248,417
Whale (common) oil and bone	350,480	311,415	432,115	169,273	296,425
Spermaceti oil and candles	175,117	157,286	221,309	306,014	219,867
	1,499,188	1,384,539	1,658,224	1,610,990	1,595,065
THE FOREST.					
Skins and furs	766,205	501,302	672,917	661,455	524,692
Ginseng	171,786	313,943	150,976	229,080	144,599
Product of wood—					
lumber (boards, staves, shingles, hewn timber, &c.)	1,512,808	1,307,670	1,335,600	1,734,586	1,717,571
oak bark and other dye	139,534	145,707	111,333	95,674	93,809
naval stores (tar, pitch, rosin, and turpentine)	314,660	447,869	457,562	555,055	463,897
ashes, pot and pearl	889,348	1,099,053	1,770,523	1,613,796	1,994,381
	3,794,341	3,815,542	4,498,911	4,889,646	4,938,949
AGRICULTURE.					
Product of animals—					
beef, tallow, hides, live cattle	608,323	844,534	739,461	767,299	936,465
butter and cheese	190,287	221,041	192,778	204,205	247,787
pork (pickled), bacon, lard, live hogs	1,354,116	1,357,899	1,291,322	1,489,051	1,832,679
horses and mules	59,830	93,753	123,373	213,396	283,835
sheep	22,175	12,276	15,029	14,938	20,027
Vegetable food—					
wheat, flower, & biscuit	4,476,357	5,287,286	5,151,437	5,977,255	4,466,679
Indian corn and meal	606,279	900,656	930,489	736,340	878,073
rye meal	.. ..	.. ..	.. ..	.. ..	73,245
rice	1,494,307	1,553,482	1,820,985	1,882,982	1,925,245
all other (pulse, rye, oats, potatoes, apples)	173,439	233,825	248,981	271,907	183,476
Tobacco	5,645,962	6,222,838	6,282,672	4,855,566	6,115,623
Cotton	20,157,484	24,035,058	20,445,520	21,947,401	36,846,649
All other agricultural products—					
indigo	420,202	.. ..	2,314	836	7,084
flax-seed	1,975	392,772	262,314	504,327	324,845
maple, or brown sugar	18,493	805	353	434	2,632
hops	85,654	23,025	27,124	81,810	13,865
wax	.. ..	93,129	112,574	107,451	85,592
	35,407,992	41,272,379	37,646,726	38,995,198	54,237,751
MANUFACTURES.					
Soap, and tallow candles	661,409	788,946	664,607	816,095	790,975
Leather, boots, shoes, saddlery, &c.	304,430	385,086	566,499	814,638	724,281
Hats	63,363	86,007	115,169	217,648	240,074
Grain (spirits, beer, and starch)	120,561	124,140	89,615	154,144	154,223
Wood, including coaches and other carriages	369,511	487,141	421,633	513,435	470,006
Cordage and canvas	26,662	33,807	22,659	47,262	28,114
Iron	108,083	132,727	97,271	143,974	156,173
Spirits, from molasses	280,648	60,045	37,807	51,172	51,505
Sugar, refined	24,051	26,320	.. ..	7,195	6,963
Chocolate	2,166	3,391	9,249	2,285	1,184
Gunpowder	56,919	82,947	66,326	163,165	234,366
Brass and copper	26,094	36,974	16,768	26,981	30,472
Medicinal drugs	44,998	43,711	74,490	78,675	69,460
Various items (snuff, wax, lead, cotton goods, gold and silver coin, umbrellas, books, maps, &c.)	173,127	191,810	175,245	228,752	210,619
Uncertain—manufactured	499,009	637,978	2,357,527	3,264,421	3,169,115
raw produce	215,742	280,569	782,071	1,576,962	2,560,682
	707,751	918,567	994,020	1,889,245	3,003,865
TOTAL	43,671,894	44,897,097	47,155,408	50,649,500	66,944,745

COMMERCE.—TABLE I.—(continued).

	1826.	1827.	1828.	1879.	1830.
THE SEA.	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Dried fish, or cod fisheries	667,742	747,171	819,926	747,541	530,690
Pickled fish	257,180	240,276	246,737	220,527	225,987
Whale (common) oil and bone	236,845	223,604	181,370	495,163	680,683
Spermaceti oil and candles	311,621	364,281	446,047	353,869	287,910
	1,473,388	1,575,332	1,693,980	1,817,100	1,725,270
THE FOREST.					
Skins and furs	582,473	441,690	626,235	526,507	641,760
Ginseng	137,914	79,566	91,164	114,396	67,852
Product of wood—					
lumber (boards, staves, shingles, hewn timber, masts, &c.)	2,011,694	1,697,170	1,821,906	1,680,403	1,663,242
oak bark and other dye	65,120	79,884	101,175	155,406	220,275
naval stores (tar, pitch, rosin, and turpentine)	254,491	402,489	487,761	377,613	321,019
ashes, pot and pearl	900,458	643,171	761,370	817,434	1,105,127
	3,961,250	3,343,970	3,889,611	3,681,759	4,019,375
AGRICULTURE.					
Product of animals—					
beef, tallow, hides, and live cattle	733,430	772,636	719,961	674,955	717,683
butter and cheese	297,765	184,049	176,354	176,205	142,370
pork (pickled), bacon, lard, live hogs	1,892,429	1,555,698	1,495,830	1,493,629	1,315,245
horses and mules	247,543	173,629	185,542	207,855	182,244
sheep	17,693	13,586	7,499	10,644	22,110
Vegetable food—					
wheat, flour, and biscuit	4,411,870	4,645,784	4,464,774	5,972,920	6,320,603
Indian corn and meal	1,007,331	1,022,464	922,858	974,535	897,119
rye meal	49,297	47,698	59,036	127,004	87,796
rye, oats, and other small grain and pulse	72,371	87,284	67,997	74,896	66,249
potatoes	41,583	30,174	35,371	30,079	39,027
apples	27,370	35,828	22,700	15,958	23,787
rice	1,917,445	2,343,908	2,620,666	2,514,370	1,986,824
Tobacco	5,347,208	6,577,123	5,269,960	4,989,974	5,586,305
Cotton	25,025,214	29,359,545	22,487,229	26,575,311	29,674,883
All other agricultural products—					
indigo	3,922	8,358	1,495	..	827
flax-seed	144,098	188,606	144,095	113,040	180,973
hops	100,668	8,284	25,432	6,917	30,312
maple or brown sugar	4,964	1,489	4,095	3,289	2,975
	41,253,001	47,065,143	39,610,924	43,954,684	46,977,332
MANUFACTURES.					
Soap, and tallow candles	722,417	901,751	912,322	692,691	619,239
Leather, boots, and shoes	586,576	388,525	401,259	356,668	338,603
Saddlery	66,994	57,717	49,758	35,765	36,651
Hats	272,431	286,624	326,294	270,780	309,362
Wax	206,001	123,354	134,886	132,939	153,666
Spirits from grain, beer, ale, and porter	143,966	144,832	203,790	215,494	225,357
Wood, including carriages, furniture, &c.	631,060	574,751	611,196	501,946	463,425
Snuff and tobacco	210,134	239,024	210,747	202,396	246,747
Lead	3,347	3,761	4,184	8,417	4,931
Linseed oil and spirits of turpentine	27,116	20,704	22,119	30,442	35,039
Cordage and canvas	31,482	63,074	20,030	7,984	4,135
Iron, pigs, bar, nails, &c.	248,960	273,158	231,234	223,705	309,473
Spirits from molasses	70,212	97,003	185,096	166,740	49,798
Sugar refined	27,043	34,012	38,207	50,739	193,084
Chocolate	2,427	1,350	3,344	1,759	1,893
Gunpowder	174,273	176,229	181,364	171,924	128,625
Brass and copper	60,983	52,341	60,452	129,647	36,601
Medicinal drugs	183,716	119,390	95,083	101,524	92,154
Cotton piece goods—					
printed and coloured					
white		45,120	76,012	145,024	61,800
nankeens		951,001	887,028	981,370	964,196
twist, yarn, and thread		14,750	5,149	1,878	1,093
all other manufactures of	1,138,125	11,175	12,570	3,849	24,744
Flax and hemp—					
cloth and thread		137,366	28,873	127,336	266,350
bags, and all manufactures of	8,381	11,084	5,335	2,166	2,152
Wearing apparel	85,866	5,364	3,365	14,954	1,779
		94,768	143,253	91,108	102,277

COMMERCE.—TABLE I.—(continued).

	1826.	1827.	1828.	1829.	1830.
MANUFACTURES— CONTINUED.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
Combs and buttons ..	23,654	33,415	60,957	76,250	124,569
Brushes	4,631	7,334	6,372	3,150	6,116
Billiard tables & apparatus ..	3,611	3,191	2,240	3,443	316
Umbrellas and parasols ..	50,764	49,138	24,703	22,067	25,796
Leather and morocco skins, not sold per lb...	43,834	119,545	81,221	80,173	70,968
Fire engines and apparatus ..	4,935	2,513	2,832	2,832	13,274
Printing presses and type ..	33,509	33,713	40,199	12,908	10,261
Musical instruments ..	5,157	14,844	10,011	8,868	32,004
Books and Maps ..	49,340	54,012	46,937	29,010	40,994
Paper and other stationery ..	39,582	37,716	32,026	25,629	13,716
Paints and varnish ..	21,545	29,664	26,329	21,133	6,690
Vinegar	5,801	8,182	5,884	5,953	2,773
Earthen and stone ware ..	1,958	6,492	5,595	5,592	60,280
Manufactures of glass ..	44,557	59,307	51,452	49,000	4,497
tin	4,615	2,967	5,049	1,757	4,172
pewter & lead	1,820	6,183	5,545	5,185	4,655
marble & stone	13,303	3,505	3,122	2,647	13,707
gold and silver, and gold leaf ..	2,297	3,605	7,505	11,250	3,561
Gold and silver coin ..	605,855	1,043,574	693,037	612,836	937,151
Artificial flowers and jew- ellery	25,162	22,357	18,195	21,627	3,968
Molasses	621	1,511	601	1,992	6,654
Trunks	9,397	12,483	6,004	11,248	2,482
Bricks and lime	6,075	3,365	4,573	3,717	22,978
Salt	5,852,733	6,386,846	5,993,401	5,716,100	6,083,675
Uncertain—manufactured raw produce	248,952 277,086	293,379 257,021	247,990 233,763	309,106 221,544	347,228 309,349
	525,338	550,400	481,753	530,650	656,477
TOTAL	53,055,710	58,921,691	50,669,669	55,700,193	59,402,029

COMMERCE.—TABLE II.

A SUMMARY STATEMENT OF THE TOTAL VALUE OF EXPORTS, DOMESTIC AND FOREIGN,
FROM 1790 TO 1831.

For the Year ending Sept. 30.	Domestic Produce.	Foreign Produce.	Total.	For the Year ending Sept. 30.	Domestic Produce.	Foreign Produce.	Total.
1790	*12,123,094	†8,082,062	20,205,156	1811	45,294,043	16,022,790	61,316,833
1791	*11,407,225	†7,604,816	19,012,041	1812	30,032,109	8,495,127	38,527,236
1792	*12,451,650	†8,301,238	20,753,098	1813	25,068,152	2,847,845	27,916,007
1793	*15,865,744	†10,443,828	26,309,572	1814	6,782,272	145,169	6,927,441
1794	*19,815,741	†13,210,492	33,026,233	1815	45,974,403	6,583,350	52,557,753
1795	*28,793,684	†19,195,768	47,989,472	1816	64,781,896	17,138,556	81,920,452
1796	40,764,097	26,300,000	67,064,097	1817	68,313,500	19,358,069	87,671,569
1797	29,580,206	27,000,000	56,580,206	1818	73,854,437	19,426,696	93,281,133
1798	28,527,097	33,000,000	61,527,097	1819	50,076,838	19,165,683	70,142,521
1799	33,142,525	45,523,000	78,665,525	1820	51,663,640	18,008,029	69,671,669
1800	31,840,003	39,130,877	70,971,780	1821	43,671,594	21,302,488	64,974,382
1801	47,473,204	46,642,721	94,115,925	1822	40,874,070	22,286,202	72,160,281
1802	36,708,189	35,774,971	72,483,160	1823	47,155,408	27,543,622	74,699,030
1803	42,205,961	13,594,072	55,800,033	1824	50,649,500	25,337,157	75,986,657
1804	41,467,477	36,331,597	77,800,074	1825	66,944,745	32,590,643	99,535,388
1805	42,387,002	53,179,019	95,566,021	1826	53,035,710	24,539,612	77,575,322
1806	41,253,727	60,283,235	101,536,963	1827	58,921,391	33,403,136	92,324,527
1807	48,699,592	59,643,558	108,343,150	1828	50,669,669	21,595,017	72,264,686
1808	9,433,546	12,997,414	22,430,960	1829	55,700,193	16,658,478	72,358,671
1809	31,405,702	20,797,531	52,203,233	1830	59,462,029	14,387,479	73,849,508
1810	42,366,675	24,391,295	66,757,970	1831	62,048,233	18,324,333	80,372,566

* Estimated at three-fifths of the whole.

† Estimated at two-fifths of the whole.

COMMERCE.—TABLE II.

DESTINATION AND VALUE OF EXPORTS, DOMESTIC AND FOREIGN, FROM 1821 TO 1830.

WHITHER EXPORTED.	1821.		1822.		1823.		1824.		1825.	
	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.
Russia	127,939	500,955	177,261	351,820	51,635	597,099	92,766	139,215	55,191	232,210
Prussia .. .. .	..	..	..	..	7,268	568	5,163	..	4,918	12,650
Sweden ¹	154,213	62,698	180,411	80,210	151,037	147,191	163,725	161,033	222,164	112,738
Swedish West Indies ..	507,077	53,149	569,566	91,247	241,701	18,362	204,983	39,687	193,701	41,247
Denmark and Norway ²	165,568	366,535	32,023	160,757	39,783	53,134	35,487	299,822	214,517	637,146
Danish West Indies ..	1,316,296	485,483	1,603,494	628,256	1,231,152	631,002	1,149,641	698,302	1,281,248	568,177
Danish East Indies ..	..	..	7,344	2,172	..	..	..	..	..	..
Holland or Netherlands ³	1,954,513	1,799,692	2,077,966	1,524,683	2,642,930	2,409,216	1,597,514	617,831	2,486,468	1,306,839
Dutch West Indies and American Colonies ..	533,259	149,784	921,072	157,704	655,763	157,065	589,775	111,984	497,194	77,092
Dutch East Indies ..	133,010	1,581,803	121,441	999,571	151,120	1,750,981	61,669	638,616	163,022	1,364,884
England, Man, and Berwick	16,339,109	2,125,594	21,072,395	1,029,324	18,968,135	978,474	18,218,841	1,268,282	32,095,396	2,031,186
Scotland	1,403,448	13,683	1,615,565	10,987	1,198,495	10,104	1,196,219	14,632	1,699,526	7,657
Ireland	889,577	4,069	770,176	..	714,037	37,044	913,532	8,673	1,247,550	20,669
Gibraltar	956,111	513,635	525,708	625,074	875,664	1,028,272	934,402	934,445	661,733	941,981
British West Indies ..	264,632	470	449,601	2,540	1,617,945	10,122	1,750,703	20,305	1,635,574	11,472
— East Indies ..	32,089	1,934,190	67,979	1,968,365	10,642	307,738	34,354	927,716	206,450	784,629
Newfoundland and British Fisheries ..	260	4,478	1,314	..	3,183	2,560	7,243	..	16,068	..
British Amer. Colonies ..	2,009,336	15,683	1,861,273	16,286	1,818,113	3,347	1,773,107	2,617	2,538,224	1,740
— African Ports ..	9,953	5,013	..	..	..	..	..	..	7,735	1,977
Other British Colonies ..	12,113	2,357	4,850	..	..	463	20,463	2,311	23,612	2,025
The Hanse Towns and Ports of Germany ..	1,535,506	597,038	1,644,226	860,789	1,582,334	1,587,085	859,383	1,003,890	1,144,474	1,976,559
French European Ports on the Atlantic ..	5,068,843	340,010	4,561,299	1,210,533	4,677,914	2,527,656	7,585,815	1,095,612	7,338,693	2,625,968
— Mediterranean ..	69,855	10,851	183,191	70,337	323,861	1,711,899	265,815	750,431	187,242	726,499
— West Indies and American Colonies ..	846,597	49,838	918,699	42,303	804,218	63,377	770,515	41,217	937,368	74,588
— East Indies ..	5,784	1,784	..	..	..	..	..	..	40,125	41,202
Bourbon and Mauritius ⁴	19,600	22,556	17,952	71,018	..	..	36,692	6,207	40,125	..
Other Fr. African Ports Hayti	1,740,383	530,218	1,746,107	373,704	1,070,140	708,642	1,901,926	463,229	1,648,055	406,560
Spanish European Ports on the Atlantic ..	324,706	189,900	116,270	67,742	130,966	65,966	140,436	366,434	73,515	82,722
— Mediterranean ..	24,225	915	25,200	1,354	20,876	19,447	9,840	..	18,814	6,336
Tenerife and the other Canaries	74,828	48,637	85,937	29,140	58,002	21,216	42,845	20,144	70,380	21,271
Florida	300,248	49,522	..	..	..	..	..	..	..	..
Manilla & Philippine Is. ..	1,359	209,964	..	11,799	5,449	41,276	8,958	210,562	23,169	185,554
Honduras, Campechy, and Musquito Shore ..	99,895	160,830	123,115	127,943	211,383	100,052	157,060	194,365	67,286	23,543
Cuba	2,950,655	1,590,625	3,201,045	1,069,573	3,271,270	2,134,095	3,611,693	2,195,840	3,276,556	1,844,146
Spanish West Indies ..	175,217	33,604	150,435	7,000	266,033	25,405	306,899	233,718	216,102	22,156
Spanish South American Colonies	508,176	529,559	1,592,767	1,828,286	1,372,526	3,229,347	..	..	..	..
South Amer. & Mexico ..	..	..	..	..	..	..	2,827,521	5,040,966	3,419,158	7,757,325
Portugal	147,726	..	102,935	18,555	49,077	309	77,255	5,168	110,015	2,824
Madeira	193,414	26,667	186,952	4,662	117,685	3,976	315,896	26,347	122,840	55,336
Fayal and the other Azores	26,837	11,168	33,160	10,454	27,841	15,704	17,463	4,023	33,421	4,695
Cape de Verd Islands ..	22,176	7,056	34,941	35,832	22,055	11,010	51,019	21,665	60,072	18,967
Coast of Brazil and other American Colonies ⁵ ..	885,348	496,412	1,217,411	246,518	1,062,209	279,191	1,669,754	602,150	1,641,296	752,458
Italy and Malta ..	410,171	669,496	560,714	889,470	115,994	951,911	76,868	587,480	66,605	578,434
Trieste & other Austrian Ports on the Adriatic ..	31,781	308,580	38,752	436,968	25,697	919,618	6,596	518,057	8,834	643,568
Turkey, Levant, Egypt, Mocha, and Aden ..	30,883	406,997	6,124	405,197	4,877	559,783	25,171	314,257	34,373	364,591
Morocco and Barbary States .. .. .	..	..	..	..	..	..	1,694	3,819	3,589	3,720
Cape of Good Hope ..	..	..	6,150	..	..	..	..	..	..	..
China	388,535	3,902,025	439,230	5,506,138	286,375	4,347,686	330,466	4,970,705	100,059	5,410,456
Asia—generally ..	32,467	1,180,797	74,340	1,087,989	55,902	436,759	19,271	450,358	37,486	675,567
West Indies, ditto ..	513,039	47,474	515,729	24,331	554,273	59,417	559,908	39,860	640,638	23,030
Europe, ditto	183,834	10,732	86,575	6,391	10,094	17,956	55,401	1,068	16,312	135
Africa, ditto	85,062	41,029	71,968	69,410	49,971	55,999	83,900	64,506	59,365	85,720
South Seas	40,328	31,080	37,209	11,934	21,741	45,429	44,063	119,367	29,090	27,164
N. W. Coast of America ..	94,493	282,505	54,799	110,790	..	..	9,703	29,675	11,500	43,601
TOTAL	43,671,894	21,303,468	49,874,079	22,286,202	47,155,408	27,543,622	50,649,500	25,337,157	66,944,745	32,590,643

¹ After 1823, the Exports were to Sweden and Norway.

² After 1823, to Denmark.

³ After 1824, to the Netherlands.

⁴ After 1824, to Mauritius.

⁵ After 1823, to Brazil.

COMMERCE.—TABLE III.—(continued).

DESTINATION AND VALUE OF EXPORTS, DOMESTIC AND FOREIGN, FROM 1821 TO 1830—(continued).

WHITHER EXPORTED.	1826.		1827.		1828.		1829.		1830.	
	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.	Domestic Produce.	Foreign Produce.
Russia	Dollars. 11,044	Dollars. 163,498	Dollars. 45,510	336,734	Dollars. 108,922	341,573	51,684	334,542	33,461	381,114
Prussia	15,120	3,421	8,515	..	15,430	..	14,411	..	15,501	..
Sweden and Norway ..	126,934	84,489	201,488	207,553	256,533	215,222	122,663	126,071	181,353	169,499
Swedish West Indies ..	120,573	23,284	416,822	25,014	611,584	23,616	684,523	23,701	552,790	37,727
Denmark	100,582	245,298	148,938	253,983	150,979	386,689	73,597	13,160	76,292	29,048
Danish West Indies ..	1,391,064	676,091	1,463,691	538,190	2,202,465	608,034	1,942,010	282,401	1,688,022	220,723
Netherlands	1,970,139	1,899,857	2,339,381	888,950	1,803,767	365,460	3,095,857	889,330	3,354,551	675,527
Dutch West Indies ..	434,135	57,426	387,573	44,162	415,313	41,616	379,874	18,607	319,495	42,298
Dutch East Indies ..	57,506	374,957	38,559	127,749	83,710	313,277	62,074	176,318	63,273	107,923
England, Man, and Berwick	19,065,185	1,569,023	23,514,421	904,596	18,737,661	2,960,261	21,281,334	1,767,457	23,773,020	826,946
Scotland	572,894	2,952	1,336,169	..	959,500	7,927	895,315	19,493	1,465,211	2,488
Ireland	775,137	6,084	637,120	..	394,450	810	327,728	366	261,667	..
Gibraltar	602,396	1,055,325	1,040,999	864,387	899,411	506,719	301,132	160,130	513,248	370,150
British East Indies ..	24,226	418,402	32,717	1,018,733	45,199	795,682	69,070	477,629	93,731	553,126
West Indies ..	2,078,671	31,931	683,105	7,470	26,149	2,706	1,463	5,058	140	1,761
Mauritius and Bourbon ¹ ..	13,893	22,000	..	..	..	..	10,502	..	..	..
British Amer. Colonies and Newfoundland ..	2,564,165	24,630	2,797,014	33,734	1,618,288	56,386	2,724,104	40,805	3,650,031	136,342
Other British Colonies ..	34,378	500	..	..	..	..	..	..	..	..
The Hanse Towns and Ports of Germany ..	979,313	1,137,384	1,693,971	1,319,214	1,804,333	1,190,918	1,998,176	1,278,984	1,549,732	728,148
French European Ports on the Atlantic ..	9,075,254	1,316,178	8,712,011	2,555,869	7,091,699	3,095,826	8,008,923	2,105,572	9,183,894	661,925
Mediterranean ..	273,073	483,677	475,547	781,076	606,638	279,407	886,132	748,777	717,252	430,888
West Indies ..	904,115	82,059	979,697	61,156	1,009,437	15,334	1,056,639	15,768	792,241	13,528
African Ports ..	518	959	..	..	..	..	..	..	5,931	579
Hayti	1,222,910	161,854	1,162,473	169,436	1,123,405	209,366	814,987	160,171	714,791	108,367
Spanish European Ports on the Atlantic ..	71,313	23,227	74,761	47,178	40,946	199,953	545,753	139,732	538,956	61,327
Mediterranean ..	80,964	20,046	62,353	7,112	66,844	51,193	185,952	45,700	145,556	..
Teneriffe and the other Canaries	42,761	21,749	46,163	39,817	33,529	9,851	42,839	23,317	19,040	610
Manilla & Philippine Is. ..	14,133	53,207	..	19,914	141,838	10,802	66,430	39,129	54,539	..
Cuba	3,740,658	2,382,774	4,160,747	2,655,341	3,912,997	2,499,994	3,719,563	1,859,626	3,439,660	1,477,675
Other Spanish W. Indies ..	210,858	12,656	218,150	13,363	222,191	15,677	309,750	35,800	245,636	27,523
Portugal	99,945	838	116,103	20,270	77,010	1,164	42,088	628	43,408	1,803
Madeira	119,058	25,549	100,153	18,281	101,948	9,985	175,074	15,089	155,719	12,358
Fayal and the other Azores	16,976	2,405	13,487	4,861	19,559	4,779	7,949	78	6,649	1,524
Cape de Verd Islands ..	39,693	9,299	80,010	24,155	67,502	9,727	68,528	13,477	50,560	7,778
Italy and Malta	81,622	448,599	74,417	535,804	279,520	641,230	289,755	611,257	320,239	441,121
Trieste and other Ports on the Adriatic ..	13,387	273,993	42,671	234,122	119,233	205,255	409,288	280,200	300,859	293,261
Turkey, Levant, & Egypt ..	46,897	271,438	131,734	470,325	78,374	124,567	27,600	47,384	75,801	337,539
Greece and Grecian Archipelago .. .. .	..	..	14,634	..	..	..	..	..	..	..
Morocco and Barbary States .. .. .	..	..	2,031	2,003	..	..	..	..	..	..
Cape of Good Hope ..	21,154	6,433	..	..	..	..	..	..	..	..
China	242,451	2,324,193	290,862	3,573,543	230,385	1,252,417	260,759	1,094,103	156,290	585,903
Mexican Ports on the Atlantic	1,024,275	5,256,775	886,907	3,286,350	522,016	2,364,468	495,626	1,835,525	985,764	3,831,694
Central Republics of South America ..	79,294	40,480	147,574	77,198	166,773	52,499	123,631	116,223	138,456	111,662
Honduras, Campeachy, &c. .. .. .	..	..	13,261	1,573	5,950	2,371	12,693	8,220	25,132	5,433
Colombian Ports on the Atlantic	946,014	1,006,658	1,111,312	333,222	560,846	323,678	525,783	241,565	316,732	180,258
Brazil	1,857,344	603,005	4,483,433	377,373	1,505,770	482,935	1,510,260	419,667	1,600,999	242,239
Buenos Ayres ²	222,832	156,506	100,780	779	50,424	94,372	59,850	444,716	181,336	425,220
Chili	512,550	934,848	1,049,748	661,853	1,519,978	1,109,424	890,356	530,778	915,718	620,936
Peru	278,724	231,175	202,944	70,677	159,389	100,735	91,842	119,615	32,400	39,402
South America—generally	56,725	8,003	71,537	21,489	146,967	13,708	147,670	6,175	9,190	170
Asia, ditto	17,365	387,490	21,139	640,670	46,776	356,135	40,721	232,768	56,318	229,290
West Indies, ditto ..	603,807	14,022	454,904	11,956	437,916	22,381	359,490	10,123	242,114	5,010
Europe, ditto	166,875	12,443	159,280	779	46,536	9,067	102,304	250	10,690	22,653
Africa, ditto	108,226	54,840	126,096	67,872	131,249	26,061	108,837	49,516	99,857	52,296
South Seas	27,468	62,859	24,923	287	42,147	45,969	20,901	21,178	6,764	..
N. W. Coast of America ..	29,921	74,870	37,702	40,832	39,620	55,365	2,911	4,399	28,392	24,698
TOTAL	53,055,710	24,539,612	58,921,691	23,403,136	50,669,669	21,595,017	55,700,193	16,658,478	59,462,029	14,387,479

¹ After 1823, the Exports were to Bourbon.

² After 1823, to the Argentine Republic.

A SUMMARY STATEMENT OF THE VALUE OF GOODS IMPORTED, FROM THE
1ST OF OCTOBER, 1829, TO THE 30TH OF SEPTEMBER, 1830.

SPECIES OF MERCHANDISE.	VALUE.	SPECIES OF MERCHANDISE.	VALUE.
MERCHANDISE FREE OF DUTY.	Dollars.	MERCHANDISE SUBJECT TO DUTIES AD VAL.	Dollars.
Articles imported for use of United States	430	Manufactures of	
Articles specially imported for Philosophical Societies, &c.—		Lace—Of thread, silk, or cotton	824,997
Philosophical apparatus, instruments, &c.	9,830	Coach	3,026
Books, maps, and charts	19,621	Flax—Linen, bleached and unbleached ..	2,485,053
Paintings and drawings	322	Checks and stripes	42,725
Medals, and collections of antiquity ..	95	Other manufactures of	483,502
Anatomical preparations	274	Hemp—Tickenburgs, osnaburgs, & burlaps	563,665
Antimony, regulus of	6,745	Sheeting, brown	209,155
Lapis calaminaris, tutanag, spelter, or zinc	2,560	Ditto, white	41,085
Burrstones, unwrought	16,317	All other manufactures of ..	133,103
Brimstone and sulphur	17,240	Clothing, ready made	46,789
Cork tree, bark of	2,538	Hats, caps, & Leghorn, straw, chip, &c. ..	326,793
Clay, unwrought	9,048	and bonnets & Fur, wool, leather, or silk ..	49,004
Rags of any kind of cloth	72,661	Iron, or Iron and steel wire	
Furs of all kinds	305,782	Side & fire arms, other than muskets & rifles	179,153
Hides and skins, raw	2,409,850	Drawing knives, axes, adzes, & socket chisels	29,007
Plaster of Paris	125,606	Birdle-bits of every description	62,271
Specimens of botany, natural history, and mineralogy	6,118	Steelyards, scalebeams, and vices ..	30,899
Models of invention and machinery ..	897	Cutting knives, sithes, sickles, reaping-hooks, spades and shovels ..	95,004
Barilla	66,222	Screws weighing 24 pounds or upwards ..	17
Wood, dye	279,411	Wood screws	66,817
unmanufactured mahogany	286,825	Other articles not specified	2,908,978
Animals for breed	23,151	Copper—Vessels of	1,235
Pewter, old	815	All other manufactures of ..	15,198
Tin in pigs and bars	101,341	Gold and Silver—Lace	3,19
Brass in pigs and bars	29,615	Watches, and parts thereof ..	312,924
old	3,344	Articles composed of, &c. ..	65,026
Copper in pigs and bars	403,203	Wares—Glass not subject to specific duties	119,925
in plates, suited to sheathing of ships	283,785	China or porcelain	90,583
for the use of the Mint	14,435	Earthen and stone	1,168,477
old, fit only to be re-manufactured ..	83,413	Japanned	36,233
Bullion, gold	115,267	Plated	95,225
silver	1,049,343	Gilt	60,785
Specie, gold	705,879	Brass	329,716
silver	6,285,475	Tin	6,248
All other articles	8,787	Pewter and lead, except shot	24,409
TOTAL	12,746,245	Wood, including cabinet wares	112,047
		Leather, including saddles, bridles, & harness	499,923
		Plated saddlery, coach and harness furniture	47,872
		Marble, and manufactures of	14,417
		Square wire, used for umbrella stretchers ..	5,550
		Ciphering slates	11,526
		Prepared quills	15,881
		Blacklead pencils	4,850
		Paper hangings	59,524
		Brushes of all kinds	9,362
		Hair seating	25,332
		Bolting cloths	39,158
		Copper bottoms, cut round, raised to the edge	3,609
		Quicksilver	314,167
		Brass, in plates	10,608
		Tin, in plates	390,900
		Crude saltpetre	32,214
		Opium	139,596
		Unmanufactured—Raw Silk	119,074
		Subject to a duty of 12½ per cent ..	883,685
		Ditto 15 ditto	2,558,858
		Ditto 20 ditto	105,610
		Ditto 25 ditto	101,102
		Ditto 30 ditto	389,821
		Ditto 33½ ditto	761
		Ditto 35 ditto	1,233
		Ditto 40 ditto	14
		Ditto 45 ditto	813
		Ditto 50 ditto	2,610
		TOTAL	35,835,455

COMMERCE.—TABLE IV.—(continued).

SPECIES OF MERCHANDISE.	VALUE.	SPECIES OF MERCHANDISE.	VALUE.
MERCHANDISE PAYING SPECIFIC DUTIES.	Dollars.	MERCHANDISE PAYING SPECIFIC DUTIES.	Do. <i>lvs.</i>
Manufactures of wool, not exceeding 33½ cents per square yard	266,060	Lead—Bar, sheet, and pig	18,757
Carpeting—Brussels, Turkey, and Wilton ..	77,562	Shot	1,038
Venetian and ingrain	123,950	Cordage—Tarred and cables	71,291
All other of wool, flax, or cotton ..	137	Untarred and yarn	8,114
Patent printed or stained floorcloths ..	19,865	Twine, packthread, and sear	75,066
Oilcloth, other than patent floorcloth ..	762	Corks	30,730
Furniture oilcloth	2,596	Copper—Rods and bolts	262
Floor mattings of flags or other materials ..	9,486	Nails and spikes	2,141
Sail duck	317,347	Fire-arms—Muskets	25,142
Cotton bagging	69,126	Rifles	85
Wines—Madeira	330,423	Iron—Iron and steel wire	59,485
Sherry	69,547	Tacks, brads, and sprigs	2,799
Red, of France and Spain	273,033	Nails	40,966
Of France, Spain, and Germany, not enumerated	424,304	Spikes	1,391
Of Sicily and other countries, and all wines not enumerated, in casks and bottles	437,795	Cables and chains, or parts thereof ..	25,885
Foreign spirits—From grain	205,704	Mill-cranks, & mill-irons of wrought iron	200
From other materials	453,286	Mill-saws	12,252
Molasses	995,776	Anchors	1,121
Beer, ale, and porter	60,420	Anvils	31,249
Vinegar	4,241	Hammers and sledges for blacksmiths ..	3,095
Oil—Foreign fishing, spermaceti, whale, olive (in casks), castor, linseed, and hempseed ..	18,074	Castings, vessels and all other	38,686
Teas—Bohea, souchong and other black, hyson skin and other green, hyson and young hyson, imperial, gunpowder, and Gomei	2,425,018	Braziers' rods or round iron, of 3-10 to 8-16 diameter inclusive	5,945
Coffee	4,227,021	Nail or spike rods, slit	784
Cocoa	137,453	Sheets and hoop	59,822
Chocolate	899	Slit or rolled, &c.	81
Sugar—Brown	3,985,865	In pigs	25,644
White, clayed, &c.	644,477	Bar and bolt, rolled	226,336
Candy, and loaf	571	—hammered	1,730,375
Other refined	9	Steel	291,957
Fruits—Almonds, currants, prunes and plums, figs, raisins (in jars and boxes), and all other	520,275	Hemp	200,338
Spices—Ginger, Cayenne pepper, mace, nutmegs, cinnamon, cloves, black pepper, pimento, and cassia	457,723	Flax, unmanufactured	39,055
Candles—Spermaceti and wax	519	Wheat flour	599
Tallow	8,959	Wool, unmanufactured	96,853
Cheese	8,898	Salt	671,979
Soap	3,310	Coal	204,773
Tallow	43	Wheat	492
Lard	10	Oats	378
Beef and pork	23,220	Potatoes	9,189
Bacon	681	Paper—folio and quarto post, foolscap, drawing and writing, printing, copperplate, and stationers', sheathing, binders', wrapping, box-boards, &c.	110,408
Butter	652	Printed books, in all languages	130,632
Saltpetre	80	Glassware—Cut and not specified	6,192
Camphor, crude	26,374	All other articles of	129,632
Salts, Epsom	111	Glass—Apothecaries' phials, not above 8 oz. bottles, not above 1 gallon	3,473
Tobacco, manufactured, other than snuff and cigars	224	Demijohns	52,991
Snuff	834	Window	15,624
Indigo	715,715	Fish—Foreign, dried or pickled	25,597
Cotton	34,737	Shoes and slippers	27,624
Gunpowder	20,488	Boots and bootees	5,362
Bristles	26,518	Cigars	1,013
Glue	3,110	Playing cards	251,818
Ochre—Dry	21,182	Roofing slates	430
In oil	430		34,683
White and red lead	14,231		
Whiting, and Paris white	3,933		
Sugar of lead	11,846		
		Value of merchandise paying specific duties ..	22,295,225
		Ditto ditto paying ad valorem duties ..	35,835,450
		Ditto ditto free of duty	12,746,245
		TOTAL	70,876,920

COMMERCE.—TABLE V.

A STATISTICAL VIEW OF THE VALUE OF IMPORTS FROM, AND EXPORTS TO, EACH FOREIGN COUNTRY, AND THE TONNAGE OF AMERICAN AND FOREIGN VESSELS EMPLOYED, FOR THE YEAR ENDING SEPT. 30, 1830.

COUNTRIES.	COMMERCE.				NAVIGATION.			
	VALUE OF IMPORTS.	VALUE OF EXPORTS.			AMERICAN TONNAGE.		FOREIGN TONNAGE.	
		Domestic Produce.	Foreign Produce.	TOTAL.	Entered into U.S.	Departed from U.S.	Entered into U.S.	Departed from U.S.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Russia	1,621,899	35,461	381,114	416,575	13,681	3,492	264	264
Prussia	16,605	16,501	..	16,501	372	232	..	..
Sweden and Norway ..	1,168,110	181,353	189,949	371,302	15,144	3,502	2,935	2,023
Swedish West Indies ..	230,530	552,700	37,727	590,427	10,406	19,960	965	984
Denmark	5,384	76,292	29,048	105,340	877	1,923	..	..
Danish West Indies ..	1,665,834	1,688,022	220,723	1,908,745	38,767	52,535	600	849
Netherlands	888,408	3,354,551	675,527	4,030,078	42,998	35,220	793	4,515
Dutch East Indies ..	181,848	63,273	107,293	170,566	662	1,501	..	220
— West Indies ..	286,509	319,495	42,298	361,793	12,047	11,043	248	124
England	22,755,040	23,773,020	826,946	24,599,966	199,972	192,714	61,355	58,589
Scotland	1,382,841	1,465,211	2,488	1,467,699	5,784	6,913	12,560	7,707
Ireland	381,333	261,687	..	261,687	5,494	4,594	6,949	2,570
Gibraltar .. .. .	..	90,028	370,150	883,398	3,346	13,450	..	..
British East Indies ..	1,373,297	93,731	553,126	646,857	4,806	4,029	..	..
— West Indies ..	168,579	140	1,761	1,901	22,428	2,395	275	..
Newfoundland ..	..	..	..	..	452	1,523	..	..
British American Colonies..	650,303	3,650,031	136,342	3,786,373	130,527	117,171	4,002	14,267
— African Ports ..	2,300	..	..	..	..	510	..	..
Other British Colonies ..	1,263	..	..	..	396	..	..	..
Hanse Towns	1,873,253	1,549,732	725,148	2,274,880	17,259	14,728	8,488	10,262
France on the Atlantic ..	6,831,015	9,183,894	661,925	9,845,819	79,459	82,521	4,061	6,014
— Mediterranean ..	891,183	171,252	430,888	1,148,140	15,406	18,967	205	1,074
French West Indies ..	518,687	792,241	13,528	805,769	25,928	47,129	5,945	4,325
— African Ports ..	..	5,931	579	6,510	..	106	..	..
Spain on the Atlantic ..	461,267	538,956	61,327	600,283	16,288	9,387	..	..
— Mediterranean ..	543,271	145,556	..	145,556	10,920	3,017	..	..
Teneriffe and other Canaries	99,878	19,040	610	19,650	1,762	796	..	..
Manilla & Philippine Islands	384,887	39,129	54,539	93,668	2,774	458	122	..
Cuba	5,577,230	3,439,060	1,477,675	4,916,735	97,644	114,054	12,954	11,356
Other Spanish West Indies	1,307,148	245,636	27,523	273,159	19,031	8,734	625	489
Portugal	165,321	43,408	1,803	45,211	12,287	2,243	..	184
Madeira	239,652	155,719	12,358	168,077	3,212	6,080	114	..
Fayal and the other Azores	32,912	6,649	1,524	8,173	634	244	137	137
Cape de Verd Islands ..	33,758	50,560	7,778	58,338	1,253	2,628	..	..
Italy	940,254	326,239	414,121	740,360	5,062	6,626	..	418
Sicily	3,740	..	..	1,697	1,697	135	..	..
Trieste & other Adriatic ports	132,093	300,859	293,261	594,120	4,332	4,662	..	282
Ragusa and the Seven Islands	..	..	..	..	345	..	..	..
Turkey, &c.	417,392	75,801	337,539	413,340	3,668	2,887	..	..
Hayti	1,597,140	714,791	108,387	823,178	18,513	19,395	1,633	1,748
Mexico	5,235,241	985,764	3,851,694	4,837,458	22,062	27,295	4,362	3,551
Central Republic	302,833	138,456	111,662	250,118	4,560	3,044	..	..
Colombia	1,120,095	316,732	180,258	496,990	13,514	5,955	1,076	62
Honduras	1,472	25,132	5,432	30,564	68	1,042	..	..
Brazil	2,491,460	1,600,999	242,239	1,843,238	38,005	44,450	248	601
Argentine Republic ..	1,431,883	425,220	204,667	629,887	6,584	9,565	225	116
Cisplatine Republic ..	..	..	..	..	236	1,373	..	..
Chili	182,585	915,718	620,396	1,536,114	304	12,287	..	..
Peru	972,884	32,400	39,402	71,802	3,276	732	..	..
South America, generally	40,269	9,190	170	9,360	394	679	..	155
China	3,878,141	156,290	585,903	742,193	8,598	3,501	..	..
Asia, generally	98,451	56,318	229,290	285,608	1,679	3,697	..	..
West Indies, ditto ..	7,586	242,114	5,010	247,124	2,288	7,417	..	260
East Indies, ditto ..	..	..	..	..	..	424	..	..
Europe, ditto	394	16,090	22,653	38,743	1,904	911	141	..
Africa, ditto	172,861	96,867	52,236	149,103	2,730	2,560	618	290
Cape of Good Hope ..	..	..	..	..	..	580	..	..
South Seas	20,748	21,178	6,764	27,942	15,392	28,222	..	..
North West Coast of America	..	28,392	..	53,090	..	522	..	..
TOTAL	70,876,020	99,462,029	14,387,479	73,849,508	967,227	971,760	131,900	133,436

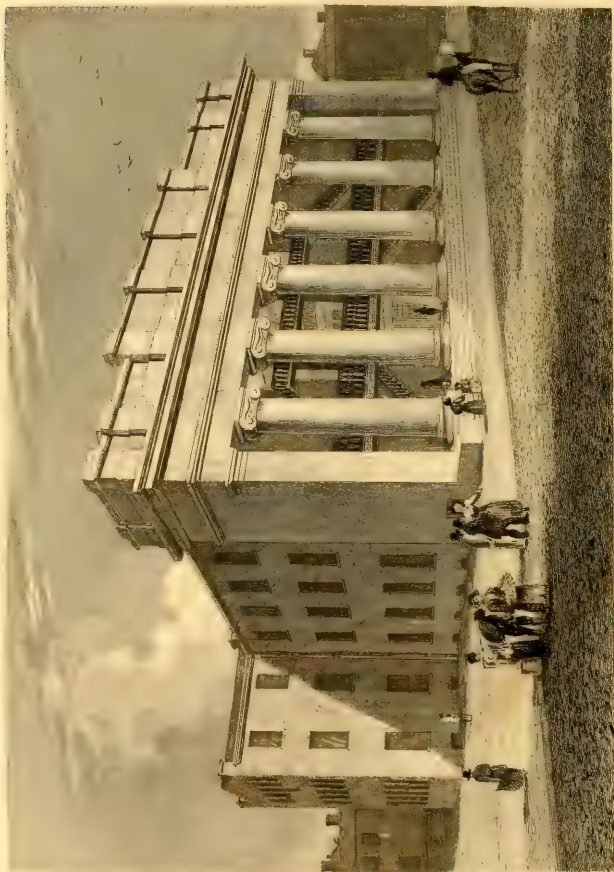




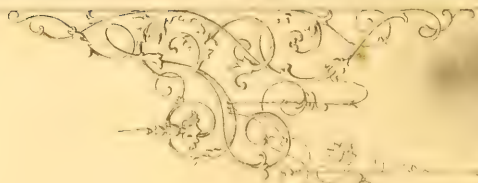
THE HOUSE OF COMMONS, AS APPEARED IN 1830







TEMPLE OF MARS ULTOR IN THE FORUM OF AUGUSTUS





CHAPTER IV.

FINANCES—REVENUE, EXPENDITURE, DEBT.

THE revenue of the United States is derived chiefly from the duties levied on the importation of foreign commodities, or the sale of public lands; the former source at present^a producing twenty-two parts (22,681,996 dollars) out of twenty-four of the whole amount, (24,767,122 dollars), the remaining twelfth being raised from the latter, (1,457,004 dollars); together with dividends or sales of bank stock, (490,000 dollars); the arrears of internal duties, (14,404 dollars); direct taxes, (11,321 dollars); and miscellaneous charges, (112,425 dollars.) The post-office department has frequently been a source of gain to the treasury; but in the year 1829, the whole amount received appears to have been expended in improvements of the post-roads, and, indeed, for the last ten years it has not, for a similar reason, been at all materially productive. We shall notice very briefly each of the sources from which the revenue is derived.

The present rates of duty imposed on the most important articles imported from foreign countries have been given in a table at the close of the chapter on manufactures, as indicative of the extent to which they are severally protected. The amount received from the customs annually, from 1791 to 1830, will be found in Table I., at the end of this chapter. It will be perceived that from the year 1792, when it was 3,443,070 dollars, it gradually rose to the year 1808, when it reached 16,363,550 dollars. This increase manifests very decidedly the progressive prosperity of the republic during that period, since it did not accrue from any increase of the rate of the imports, but of the quantity of the articles consumed or the amount of the tonnage employed. During the years 1809-10, in consequence of the embargo, the amount declined to about half the sum; in 1811 it reached thirteen millions of dollars; but, in consequence of the war, it sank again, in 1812, to under nine millions of dollars. In

^a These statements and calculations are founded on the official reports of the year ending 30th of Sept. 1829.

July of that year the rate of duties was doubled; and in 1813, they exceeded thirteen millions of dollars: in 1814, however, in consequence of the continuance of the war, and the effectual manner in which the British navy blockaded the American coast, they did not amount to six millions of dollars, and in 1815, a little exceeded seven millions of dollars. After the close of the war, the double duties, which were continued to the 30th of June, 1816, and the immense importation of goods which the active competition of British manufacturers and merchants poured into the United States, raised the amount of customs for the year 1816 to the surprising sum of 36,306,874 dollars, the highest amount, by nearly one-third, they have ever attained. The tariff which was established on the abandonment of the war duties, in June, 1816, was at a considerably higher rate than the old duties, and produced, in 1817, a revenue of upwards of twenty-six millions of dollars. The American market, during the first two years of peace, was glutted with foreign manufactures, and consequently, a reaction in the imports took place, which reduced the amount, in 1818, to little more than seventeen millions of dollars; in 1819 it reached twenty millions of dollars; from 1820 to 1825 the amount varied from thirteen to twenty millions of dollars. Since that time it has, with the exception of 1827, been about twenty-three millions of dollars. It was expected that from the high duties laid by congress on commodities which were largely imported, that the returns of the customs would exceed what they had previously been. Ministers of finance, when making up their budgets, it is notorious, from their anxiety to put the best face on their administration, are often too sanguine. In this case the anticipation was not disappointed.^b

The sale of public lands was for a time almost the only real source of revenue besides the customs; for although an amount of 490,000 dollars from dividends on stock in the bank of the United States appears in the statement of receipts, while any public debt remains, that sum, or nearly so, must be paid to the public creditor as interest on the debt, of which the loan to the United States bank forms a part, and upon which the interest paid by the bank cannot therefore be esteemed as clear revenue. The title of the United States to the public lands is derived from three distinct sources: first, from treaties with foreign nations, by which territory has been acquired, or boundaries settled; secondly, by treaties with the Indian tribes, by which, for a certain remuneration, the title of the natives to the land has been extinguished; and thirdly, from cessions of territories made by individual states to the general government. It cannot be matter of surprise that the title of the United States should be frequently disputed by individuals, on the ground of claims existing previously to the cession of the land in question to the government. No less than

^b Since these sheets were prepared for press, important changes in the financial as well as territorial positions of the country have occurred, which will be attended to hereafter

fourteen extensive claims are stated by Seybert; * some of them arising from alleged purchases from the Indians, which however were, even if substantiated, undoubtedly contrary to law, and others originating in grants from officers of the different governments to which the territory belonged before its acquisition by the United States, but of which the evidence of confirmation by their respective governments is either totally wanting or incomplete. Our limits will not permit us to state the details of these disputed claims: there is one, however, both from its peculiar character and its magnitude, too remarkable to be passed over. The Yazoo claims, as they were called, embraced 35,000,000 acres in the Mississippi territory, and were derived from a pretended sale by the legislature of Georgia, but declared null, as fraudulent, by a subsequent legislature. "The evidence, as published by the state of Georgia, and by congress," says Dr. Seybert, "shows that that transaction, even if considered as a contract, is, as such, on acknowledged principles of law and equity, null *ab initio*; it being in proof that all the members of the legislature who voted in favour of the sale, that is to say, the agents who pretended to sell the property of their constituents, were, with the exception of a single person, interested in, and parties to the purchase." This claim, however, was arranged by commissioners appointed by congress in 1814, and treasury certificates to the amount of more than four millions of dollars were awarded among the various claimants.

On the 10th of May, 1800, an act of congress was passed, laying the foundation of the land system, on a new plan. Under this law, all the lands, before they are offered for sale, are surveyed, on a rigidly accurate plan, at the expense of the government. This is the corner-stone of the system. In this consists its great improvement over the land system of Virginia, according to which, warrants were granted to those entitled to receive them, for tracts of unsurveyed public land. These warrants might be located on any land not previously appropriated. In the absence of geometrical surveys, it was difficult, by natural boundaries, Indian paths, and buffalo traces, to identify the spots appropriated. The consequence was, that numerous warrants were laid on the same tract, conflicting claims arose, and the land titles of the country were brought into a state of the most perplexing and injurious embarrassment. The state of Kentucky, and that portion of Ohio allotted as bounty-lands to the Virginia troops, have constituted one great theatre of litigation, from their first settlement. On the other hand, land titles acquired under the system of the United States are almost wholly exempt from controversies arising from uncertainty of location or boundary. The surveys of the public lands of the United States are founded upon a series of true meridians. The first principal meridian is in Ohio, the second in Indiana, the third in Illinois, &c., each forming the base of a series of

* Statistical Annals, chap. v. p. 355.

surveys, of which the lines are made to correspond, so that the whole country is at last divided into squares of one mile each, and townships of six miles each; and these subdivisions are distributed with mathematical accuracy into parallel ranges. The greatest division of land marked out by the survey is called a township, and contains 23,040 acres, being six English or American miles square. The township is subdivided into thirty-six equal portions, or square miles, by lines crossing each other at right angles. These portions are called sections. The section contains 640 acres, and is subdivided into four parts, called quarter-sections, each of which, of course, contains 160 acres. The quarter-sections are finally divided into two parts, called half-quarter-sections, of eighty acres each, and this is the smallest regular subdivision known to the system. The sectional and quarter-sectional divisions are designated by appropriate marks in the field, which are of a character to be easily distinguished from each other. The half-quarter-sections are not marked in the field, but are designated on the plot of the survey, by the surveyor-general marking the distance on one of the ascertained lines, in order to get the quantity of such half-quarter-sections as exhibited by his plan of survey. The fractional sections which contain less than 160 acres are not subdivided; the fractional sections which contain 160 acres and upwards are subdivided in such a manner as to preserve the most compact and convenient forms. A series of contiguous townships laid off from north to south is called a range. The ranges are numbered north and south from the base, or standard line, running due east and west. They are counted from the standard meridian, east and west.⁴ The dividing lines of the sections, of course, run by the cardinal points, except where what is called a fractional section is created by a navigable river or an Indian boundary.

The superintendence of the surveys is committed to five surveyors-general. One thirty-sixth part of all the lands surveyed, being section No. 16, in each township, is reserved from sale, for the support of schools in the township; and other reservations have been made for colleges and universities. All salt springs and lead mines are also reserved, and are subject to be leased under the direction of the president of the United States. Whenever the public interest is supposed to require

⁴ The following first section of a private act, passed in 1825, may serve as a specimen of the nomenclature by which lots of land may be indicated in the system of the public surveys:—"Be it enacted by the senate and house of representatives of the United States of America in congress assembled, that, when the secretary of the treasury shall be satisfied that John Johnson, of Indiana, did enter at the Brookville land-office, in said state, the east half of the north-east quarter of section thirty-five, and the west half of the north-west quarter of section thirty-six in township seventeen north, in range four east, by mistake, instead of the east half of the south-east quarter and the west half of the south-west quarter of the said sections, it shall be lawful for a patent to be issued to the said Johnson, for the two last-mentioned half-quarters, so intended to be entered, on his relinquishing to the United States his interest in, and surrendering the patent issued for, the two first mentioned half-quarters, in such manner as shall be directed by the secretary of the treasury."

that a certain portion of territory should be brought into market, for the accommodation of settlers or others who may wish to become purchasers, the president issues instructions to the surveyor-general, through the commissioner of the general land office, at Washington, to have such portion of territory surveyed. The surveyor-general makes this requisition publicly known to those individuals who are in the habit of contracting for public surveys; and a contract for the execution of the surveys required is entered into between the surveyor-general and deputy surveyors. The contract is given to the lowest bidder, provided the surveyor-general be fully satisfied of his capacity to fulfil the contract. The maximum price established by law for executing the public surveys is three dollars a mile, in the upland and prairie countries. In the southern parts of the United States, where the surveys are rendered difficult by the occurrence of bayous, lakes, swamps, and cane-brakes, the maximum price established by law is four dollars a mile. The deputy surveyors are bound by their contract to report to the surveyors-general the field notes of the survey of each township, together with a plan of the township. From these field notes the surveyor-general is enabled to try the accuracy of the plan returned by the deputy surveyor, and of the calculations of the quantity in the legal subdivisions of the tract surveyed. From these documents three plans are caused to be prepared by the surveyor-general; one for his own office; one for the register of the proper land office to guide him in the sale of the land; and the third for the commissioner of the general land office at Washington. The government has generally found it expedient to authorize the surveying of forty townships of land annually, in each land district, so as to admit of two sales by public auction annually, of twenty townships each. The general land office at Washington is under the superintendence of an officer, called the commissioner of the general land office. It is subordinate to the treasury department. The public lands are laid off into districts, in each of which there is a land office, under the superintendence of officers appointed by the president and senate, called the register of the land office, and the receiver of public moneys. There are at present forty-two land offices. The register and the receiver each receive a salary of 500 dollars per annum, and a commission of one per cent. on the moneys paid into their office.

Till 1820, a credit was allowed on all purchases of public lands. In consequence of this system, large quantities of land had been purchased on speculation, and in the ordinary course of purchases a vast amount of land debt to the government had been contracted. To relieve the embarrassed condition of these debtors, an act was passed, authorizing the relinquishment of lands purchased, and substituting cash payments for the credit system. The most beneficial effects have resulted from this change, apart from the relief of those who were indebted to the government. At the same time the minimum price of the land was reduced from two dollars to one dollar

and twenty-five cents an acre. In the first instance the public lands are offered for sale, under proclamations of the president, by public auction, with the limitation of the minimum rate. Lands not thus sold are afterwards subject to private sale at the minimum price.

A very large amount of public land is in the occupation of persons who have settled upon it without title. This is frequently done, in consequence of unavoidable delays in bringing the land into market, and not from any intention, on the part of the settler, to delay payment. Laws have been passed, granting to settlers of this description a preemptive right in the acquisition of a title, that is, the preference over all other persons at private sale. These laws afford the actual settler no protection against those who might choose to overbid him at the public sales; but it is believed, that in most cases, by mutual agreement among purchasers, the actual settler is enabled to obtain his land, even at public sale, at the minimum price. It is stated, however, that great injury is done to the settlers by combinations of land speculators, who infest the public sales, purchasing the lands at the minimum price, and compelling *bonâ fide* settlers to take them at an enhanced valuation. Should the settler refuse such an agreement, the speculators enter into competition with him at the sale. On the whole it would appear, that, in general, the government obtains but the minimum price for its lands, although what is actually sold and occupied, being the choice of the whole quantity brought into market, is, of course, worth much more.

It has been suggested, and with an appearance of justice, that the price of the public lands is still too high. The government, having already reimbursed itself for the cost of them, cannot be considered as having any other duty to perform than to promote their settlement, as rapidly as it can take place by a healthy process, and to meet the wishes of all who desire *bonâ fide* to occupy them. Considering the class of men most likely to take the lead in settling a new country, one hundred dollars, (the price of a half-quarter section) paid in cash to the government, is a tax too heavy perhaps for the privilege of taking up a farm in an unimproved wilderness. The price is already too low to oppose a serious obstacle to speculation; so that a considerable reduction of it would not probably increase that evil, while it would essentially relieve the *bonâ fide* settler. There would, in fact, perhaps be little else to object to a plan of gratuitous donation of a half-quarter-section to actual settlers, than the comparative injustice of such a plan toward those settlers who have already purchased their farms.

Five per cent. on all the sales of public lands within the several states is reserved; three-fifths of which are to be expended by congress in making roads leading to the states, and two-fifths to be expended by the states in the encouragement of learning. The first part of this reservation has been expended on the Cumberland-

road; and the treasury of the United States is greatly in advance to that fund on account of this public work. It appears, that up to the year 1830, about 150 millions of acres of the public lands have been surveyed. Of these, thirty millions have not been proclaimed for sale; twenty millions have been sold, and as much more granted by congress for education, internal improvement, and other purposes. There were then 110 millions of acres surveyed, but not sold, eighty millions of which were in the market, ready for sale at the minimum price, and thirty millions subject to be proclaimed for sale whenever there was a demand. The total quantity of land, the title of which vests in the United States, was estimated by Pitkin and Seybert at 400 millions of acres. Great changes have of course been witnessed, in consequence of events not then to be foreseen. It must be evident, that while such a resource is possessed for the profitable occupation of redundant labour or capital, the labourer will never be without remunerating produce for his toil, and the capitalist will be clear of the folly, not to say the guilt, of reducing profits to such a shade, that no small manufacturer or small vender can possibly exist; and consequently, that the country so favoured will enjoy a long period of prosperity.

The total amount received by the treasury for the sale of public lands from the year 1796 to 1829, as stated in a letter from the secretary of the treasury to the chairman of the committee of retrenchment, in April, 1830, was 32,403,527 dollars; the highest amount was in 1819, 3,274,422 dollars. It appears that the capital thrown out of employ by the destruction of manufactures, on the return of peace, was appropriated to speculations in land, in 1817, 1818, and 1819; but many of these speculations turning out unfavourably, the amount expended in the purchase of land resumed its usual level. From that year to the year 1829, the amount received from this source had varied from about one million to one million and a half of dollars; but during the last two years it had greatly increased—the amount for 1830 being 2,329,356 dollars, and the amount for 1831, it was calculated by the secretary of the treasury, would prove to be about three millions and a half, a sum exceeding that of any former year.^e

^e It would appear that in consequence of the revenue produced from the sale of public lands being no longer needful to the general government, a most important change respecting them may possibly occur—the transfer of their title from the general government to the states where they are situated. “On this point,” says Mr. M’Lane, “the undersigned deems it proper to observe, that the creation of numerous states throughout the western country, now forming a most important part of the Union, and the relative powers claimed and exercised by congress and the respective states over the public lands, have been gradually accumulating causes of inquietude and difficulty, if not of complaint. It may well deserve consideration, therefore, whether at a period demanding the amicable and permanent adjustment of the various subjects which now agitate the public mind, these may not be advantageously disposed of in common with the others, and upon principles just and satisfactory to all parts of the Union. It must be admitted that the public lands were ceded by the states, or subsequently acquired by the United States, for the common benefit, and that each state has an interest in their proceeds, of which it cannot be justly deprived. Over this part of the public property the powers of the general government have been uniformly supposed to have a peculiarly extensive scope, and have been

Respecting the internal revenue, as it has almost ceased to exist except in the shape of arrears, it is unnecessary to enter into any lengthened detail. Soon after the establishment of the government it was found necessary to impose internal taxes, and the articles made liable to them are stills and spirits, snuff, refined sugar, sales at auction, licenses to retail wines and spirituous liquors, carriages for the conveyance of passengers, and stamped paper. It is interesting to observe the regular and rapid increase in the product of these duties, from about 209,000 dollars to upwards of one million, from 1792 to 1801. As the rate of duty was not increased, it must be evident the quantity consumed of the articles liable to them must have increased in the ratio of fifty per cent. per annum, the amount of the last year being five times that of the first. There is only one drawback on the satisfactory nature of this statement—a large portion of the increased consumption was in spirituous liquors! The above duties were repealed in 1802; but the arrears of them continue to occupy a place in the treasury accounts till the year 1814, when, with very little variation, they were reenacted. Subsequently, however, in consequence of the war, additional duties were imposed by congress on spirits and other articles, and during the same session taxes were imposed on most of the articles manufactured in the United States. In 1815, the revenue derived from internal taxation amounted to more than four and a half millions of dollars, and in 1816 it reached its maximum of upwards of five millions. Soon after the termination of the war many of the duties were either reduced or repealed, and subsequently the remainder have been dismissed from the statute book, unless the “fees on letters-patent,” which amount for 1829 to 12,990 dollars, may be termed a remnant of internal taxation. It has already been intimated

construed to authorize their application to the purposes of education and improvement to which other branches of revenue were not deemed applicable. It is not practicable to keep the public lands out of the market; and the present mode of disposing of them is not believed to be the most profitable either to the general government or to the states, and must be expected, when the proceeds shall be no longer required for the public debt, to give rise to new and more serious objections.

“Under these circumstances, it is submitted to the wisdom of congress to decide upon the propriety of disposing of all the public lands in the aggregate, to those states within whose territorial limits they lie, at a fair price, to be settled in such manner as might be satisfactory to all. The aggregate price of the whole may then be apportioned among the several states of the Union, according to such an equitable ratio as may be consistent with the objects of the original cession; and the proportion of each may be paid or secured directly to the others by the respective states purchasing the land. All cause of difficulty with the general government on this subject would then be removed; and no doubt can be entertained, that, by the means of stock issued by the buying states bearing a moderate interest, and which, in consequence of the reimbursement of the public debt, would acquire a great value, they would be able at once to pay the amount upon advantageous terms. It may not be unreasonable also to expect, that the obligation to pay the annual interest upon the stock thus created, would diminish the motive for selling the lands at prices calculated to impair the general value of that kind of property. It is believed, moreover, that the interests of the several states would be better promoted by such a disposition of the public domain, than by sales in the mode hitherto adopted; and it would at once place at the disposal of all the states of the Union, upon fair terms, a fund for purposes of education and improvement, of inestimable benefit to the future prosperity of the nation.”—*Finance Report, Dec. 7, 1831, pp. 19, 20.*

that the amounts which are stated in Table I., in the column of internal revenue, are only the arrears of the former imposts, which, as debts due to the government, continue to be collected.

The direct taxes are those laid upon houses and lands, and upon slaves. They were first imposed in 1798, to the amount of two millions of dollars, apportioned to the several states according to the constitution. Of this sum, rather more than one-third was collected in the year 1800, another third in 1801 and 1802, and a portion only of the remainder has since been collected as arrears. In 1813 a tax to the amount of three millions of dollars was imposed; and in 1815 an *annual* direct tax of six millions of dollars was enacted, which, however, was reduced to three millions of dollars by the congress of 1816, and entirely repealed in 1817. The arrears of this tax still continue to flow annually into the treasury. The whole amount levied by the four enactments was fourteen millions of dollars, and in the year 1829, 12,702,597 dollars had been received, which, allowing for expenses of collection, does not leave room for many defaulters. The following statement of the rate of assessment on each occasion of the several states will be instructive, as another test of the progressive increase in value of the property of the inhabitants.

STATES.	Quotas apportioned in 1798.			Quotas apportioned in 1813.			Quotas apportioned in 1815		
	<i>Dolls.</i>	<i>Cts.</i>	<i>Mills.</i>	<i>Dolls.</i>	<i>Cts.</i>		<i>Dolls.</i>	<i>Cts.</i>	
New Hampshire	77,705	36	2	96,793	37		193,586	74	
Massachusetts	260,435	31	2	316,270	98		632,541	96	
Rhode Island	37,502	08	0	34,702	18		69,404	36	
Connecticut	129,767	00	2	118,167	71		236,335	42	
Vermont	46,864	18	7	98,343	71		196,687	42	
New York	181,680	70	7	430,141	62		860,283	24	
New Jersey	98,387	25	3	108,871	83		217,743	66	
Pennsylvania	237,177	72	7	365,479	16		730,958	32	
Delaware	30,430	79	2	32,046	25		64,092	50	
Maryland	152,599	95	4	151,623	94		303,247	88	
Virginia	345,488	66	5	369,018	44		738,036	88	
Kentucky	37,643	99	7	168,928	76		337,857	52	
North Carolina	193,697	96	4	220,238	28		440,476	56	
Tennessee	18,806	38	3	110,086	55		220,173	10	
South Carolina	112,997	73	9	151,905	48		303,810	96	
Georgia	38,814	87	5	94,936	49		189,872	98	
Ohio . . . . .	.....			104,150	14		208,300	28	
Louisiana . . . . .	.....			28,295	11		56,590	22	

Of the various tests by which the progressive prosperity of a country may be ascertained, the extension of its internal communications is certainly not one of the least important. In this respect the progress of the United States is, perhaps, more conspicuous than in almost any other. In the year 1775, congress first established a

line of posts from Falmouth, in New England, to Savannah, in Georgia: in 1782 all the surplus income derived from the postage was directed to be applied to the establishment of new post-offices, and the support of packets. In the year 1790 there were seventy-five post-offices, and 1,875 miles of post-roads; in the year 1810 there were 2,300 post-offices, and 36,406 miles of post-roads; and in 1829 there were 8,004 post-offices, and 115,000 miles of post-roads. The general post-office is established at Washington, under the direction of a post-master general, who is authorized to appoint two assistants, and the requisite number of clerks; he is further directed to superintend the business of the department in all the duties that are or may be assigned to it; and he is required, once in three months, to render to the secretary of the treasury an account of all the receipts and expenditures in the department, to be adjusted and settled as other accounts. The post-master general may establish post-offices, and appoint post-masters on the post-roads which are or may be authorized by law, at all such places as to him may appear expedient. He regulates the number of times the mail shall go from place to place, and he is authorized to contract for carrying the mail, and to establish post-roads.

The rates of postage are very moderate, being about half those of Great Britain. For any distance not exceeding thirty miles, six cents; eighty miles, ten cents; 150 miles, twelve cents and a half; 400 miles, eighteen cents and three quarters; above 400 miles, twenty-five cents.^f Thus a letter may be conveyed from Maine to New Orleans, at least 2,000 miles, for a fraction more than one shilling. Double letters, or those composed of two pieces of paper, are charged with double the above rates, and triple and quadruple letters in the same proportion. All letters weighing one ounce avoirdupois, or more, are charged at the rate of single postage for each quarter of an ounce, or quadruple postage for each ounce, according to their weight; and no letter can be charged with more than quadruple postage unless its weight exceeds one ounce avoirdupois. The postage on ship letters, if delivered at the office where the vessel arrives, is six cents; if conveyed by post, two cents in addition to the ordinary postage. For each newspaper^g not carried out of the state in which it is published, or, if carried out of the state, not over 100 miles, one cent; over 100 miles, and out of the state in which it is published, one cent and a half. Magazines and pamphlets, if published periodically, distance not exceeding 100 miles, one cent and a half per sheet; ditto, distance over 100 miles, two cents and a half per sheet; if not published periodically, distance not exceeding 100 miles, four cents per sheet; ditto, distance over 100 miles, six cents per sheet. Small pamphlets, containing not more than a half sheet royal, are charged with half the above rates;

^f It may not be improper to remind our readers, who may not be familiar with American coins, that a cent, or the hundredth part of a dollar, is nearly equivalent to the English halfpenny.

^g The postal convention concluded in 1848 will be supplied hereafter

eight pages quarto are rated as one sheet, and all other sizes in the same proportion. The number of sheets in a pamphlet sent by mail must be printed or written on one of the outer pages; when the number of sheets is not truly stated, double postage is charged. Every thing not coming under the denomination of newspapers or pamphlets is charged with letter postage.^b

Before entering on the general expenditure of the United States, it may be proper to notice the mint establishment, and the state of the circulating medium. In 1792, a mint establishment for the United States, to be carried on at the seat of government for the time being, was authorized by congress. Since the removal of the seat of government to Washington, this establishment has, by special act of congress, been continued at Philadelphia; in that city, a handsome and commodious new building has been provided, on such a plan as to admit of its operations being carried on to much greater extent than formerly. The gold coins of the United States are—eagles, of the value of ten dollars or units, containing $247\frac{1}{8}$ grains of pure, or 270 grains of standard gold; half-eagles, of the value of five dollars; quarter eagles, of the value of two and a half dollars. The silver coins are—the dollar or unit, of the value of one hundred cents, containing $371\frac{4}{5}$ grains of pure silver, or 416 grains of standard silver; half-dollar, of the value of fifty cents; quarter-dollar, of the value of twenty-five cents; dime, of the value of ten cents; half-dime, of the value of five cents. The copper coins are—cent, of the value of the one-hundredth part of a dollar, and containing eleven pennyweights of copper; half-cent, of the value of the two-hundredth part of a dollar. The devices upon the coins are, upon one side, an impression emblematical of Liberty, with an inscription of the word "Liberty," and the year of the coinage; upon the reverse of the gold and silver coins, the representation of an eagle, with the inscription, "United States of America;" upon the reverse of the copper coins, an inscription expressing the denomination of the piece. The proportional value of the gold and

^b *Privilege of Franking*.—"Letters and packets to and from the following officers of the government, are by law received and conveyed by post, free of postage:—The president and vice-president of the United States; secretaries of state, treasury, war, and navy; attorney-general; postmaster-general and assistant postmaster-general; comptrollers, auditors, register, and solicitor of the treasury; treasurer; commissioner of the general land office; commissioners of the navy board; commissary-general; inspectors-general; quartermaster-general; paymaster-general; superintendent of patent office; speaker and clerk of the house of representatives; president and secretary of the senate; and any individual who shall have been, or may hereafter be, president of the United States; and each may receive newspapers by post free of postage.—Each member of the senate, and each member and delegate of the house of representatives, may send and receive, free of postage, newspapers, letters, and packets, weighing not more than two ounces, (in case of excess of weight, excess alone to be paid for,) and all documents printed by order of either house, during and sixty days before and after each session of congress.—Postmasters may send and receive, free of postage, letters and packets not exceeding half an ounce in weight; and they may receive one daily newspaper each, or what is equivalent thereto.—Printers of newspapers may send one paper to each and every other printer of newspapers within the United States, free of postage, under such regulations as the postmaster-general may provide."—*American Almanack*, 1832.

silver in all the coins which are current in the United States is as fifteen to one, according to quantity in weight; that is to say, every fifteen pounds weight of pure silver, are of equal value with one pound weight of pure gold. The standard of all the gold coins of the United States is eleven parts fine to one part of alloy; the alloy is composed of silver and copper in proportions not exceeding one-half of silver. The standard of all the silver coins is 1,485 parts fine to 179 parts of alloy; the alloy is wholly of copper. Any person may carry gold or silver bullion to be coined at the mint; the bullion so brought is assayed and coined as speedily as possible, free of expense. As soon as the bullion has been coined, the person who deposited the same, may upon demand receive in lieu thereof, coins of the same species of bullion, weight for weight of the pure gold or pure silver therein contained. The gold and silver coins struck at the mint are a lawful tender; the value thereof is in proportion to their respective weights.

The coinage effected in the course of 1830 amounted to 3,155,620 dollars, comprising 643,105 dollars in gold coins, 2,495,400 dollars in silver, 17,115 dollars in copper, and consisting of 8,357,191 pieces of coin, viz.

Half-eagles	126,351	making	dollars. 631,755
Quarter-eagles	4,540	"	11,350
Half-dollars	4,764,800	"	2,382,400
Dimes	510,000	"	51,000
Half-dimes	1,240,000	"	62,000
Cents	1,711,500	"	17,115
	<hr/> 8,357,191		<hr/> 3,155,620

Of the amount of gold coined within the last year, about 125,000 dollars were derived from Mexico, South America, and the West Indies; 19,000 dollars from Africa; 466,000 dollars from the gold region of the United States, and about 33,000 dollars from sources not ascertained. Of the gold of the United States above mentioned, 24,000 dollars may be stated to have been received from Virginia, 204,000 dollars from North Carolina, 26,000 dollars from South Carolina, and 212,000 dollars from Georgia. In the last annual report of the director of the mint, the progressive developement of the gold region of the United States was illustrated by referring to the increase of the annual receipts from North Carolina, which, previous to 1824, had been inconsiderable; but from that year to 1829, inclusive, had advanced from 5,000 dollars to 128,000 dollars, and also to the then novel occurrence of gold having been received at the mint from Virginia and South Carolina, about 2,500 dollars having been received from the former, and 3,500 dollars from the latter. The year 1830 exhibited, in relation to all these states, a conspicuous increase in the production of gold, and presented, also, the remarkable fact of 212,000 dollars in gold

received from Georgia, from which state no specimen even had been received at the mint in any previous year.

Owing to the proportionate value of the gold and silver coins not being properly adjusted (gold being valued as only 15 to 1 of silver, while its real value is very nearly 16 to 1,¹) there is no gold coin now in circulation.^k

It has been a question much agitated amongst financiers and political economists, whether the absence of the precious metals is a subject for lamentation or for congratulation. It has been affirmed by some, not without apparent reason, that as the circulating medium is only an instrument—a machine—the less the expense of its construction and maintenance, the more profit or the less loss must accrue: while it has been maintained on the other hand, that there is no safety for commerce, unless gold, or paper immediately convertible into gold, be the circulating medium. We shall not so far forget the nature and limits of our undertaking as to enter into this controversy, but content ourselves with stating our opinion, that, excepting the advantage of cheapness, it is a matter of indifference whether the circulating medium be of

¹ "The relative value of gold and silver in our coins should be 15.9 to 1. In France, the relative value of gold to silver is about 15.82 to 1. In Great Britain, gold is in value to silver about as 15.86 to 1. The relative value of gold and silver in Spain has been 16 to 1 during the last fifty or sixty years, and, according to recent information, the value of gold in Spain is now a little higher than this proportion. In Portugal, the rise of gold and the decline of silver in relative value were slower and later than in Spain; but the relative value of the two metals in Portugal is now about 16 to 1, and this proportion appears to have prevailed there for many years. From all the information which can be obtained, it appears that the value of gold in relation to silver, is about 16 to 1 in all the American countries south of the United States. This relative value seems to have prevailed in those parts of America which were formerly Spanish, and especially in Mexico and Peru, during the last forty or fifty years. In Brazil, gold was for a long time somewhat less valuable, but during the last ten years, the relative value of gold in Brazil has also been about 16 to 1. In the West Indies, the two metals fluctuate much in respect to each other; but the ratio of 16 to 1 seems to be the average of relative value." — *Report of the Select Committee appointed to consider the State of the Current Coin, &c., presented to the Senate, 15th Dec., 1830.*

^k "The fact that we have no gold coins in use, is not the intended effect of our institutions. It has resulted from too low a valuation of gold in respect to silver, when our system was established, and a progressive rise in the relative value of gold since that time. By our system the two metals are coined upon the basis that one pound of gold is equal in value to fifteen pounds of silver, and all our coinage of the two metals has been executed in conformity to this relative valuation. This proportion was too low a valuation of gold in the year 1792, and it is certainly much too low a valuation of gold in relation to silver at this time. Our gold coins being much underrated in respect to silver, have never had any general circulation in the country; they have ceased to be used as money; they are merely merchandise, purchased by a considerable premium over silver, and they are used in manufactures or exported to Europe. Our public coinage of gold is now wholly without any public benefit: we prohibit and punish all private coinage of gold; we coin this metal at the mint upon a principle which does not permit it to circulate as money, and we pay the expense of this useless coinage. In practice, this coinage affords a facility to the possessor of gold bullion, since it enables him to employ the mint to weigh and assay his bullion, and to divide it into very convenient portions, without expense to himself. When the coins are received from the mint they are sold for their value as bullion; some of them are used in manufactures, and the greater part are exported. If we will not rectify the legal proportion between the coins of the two metals, we ought to abolish the coinage of gold, save a useless expense, and leave gold to be treated like other metals not coined as money." — *Report of the Select Committee, 1830.*

value in itself or be the representative of value; that if it be the representative of value, it is not important whether that value be gold, or land, or houses, or barrels of flour, provided the circulating medium by which they are represented does not represent more than their marketable or exchangeable value; and that the interests of commerce are not directly affected by the question, whether the circulating medium be real value itself, or the representative of real value, but by the amount of the circulating medium, the variations of which have a corresponding effect upon the prices of all articles of trade. There can be no doubt, that as the interests of all are affected by the increase or diminution of the currency, this point should be sufficiently under the control of the executive, to prevent or mitigate the pernicious extremes in which the avarice or indiscretion of individuals have too often resulted. The committee, however, consider that the abundance of "paper money" in the United States is an evil. "While we have so much paper money," they state, we cannot have any great quantity of the precious metals in use, as money; and while this extensive use of paper money shall continue, an adjustment of the relative value of gold and silver will not bring much gold into circulation. Still, the necessary adjustment should be made. No man can foresee how far the present course of issuing paper will proceed, or how long paper money in its present forms and abundance will be tolerated. Whatever may happen in respect to paper money, the precious metals should always be coined, and a sound system of coins should be in constant operation, to the end that whether paper money shall be used or not, and whether the amount of our coins shall be great or small, a portion of them may consist of gold, and another portion of silver."

It appeared from the testimony of the select committee, that the coins then in the United States, and the bank notes then circulating as money, were estimated at about one hundred millions of dollars. The coin was estimated at about twenty-three millions of dollars; of which sum, it is conceived, that about fifteen millions of dollars were held by the banks, and about eight millions of dollars were circulated among the people. The bank notes in circulation were estimated at about seventy-seven millions of dollars. The amount of money in circulation among the people was, accordingly, about eighty-five millions of dollars, consisting of about seventy-seven millions of bank notes, and about eight millions of coin. The banks in the principal sea-ports had at that time an unusual quantity of coin; and the amount of coin then held by those banks was much greater than the sum which they had generally held. Of the sum of seventy-seven millions of dollars of bank notes in circulation, it was estimated that about one-half consisted of notes for sums exceeding five dollars, about one-fourth of notes for five dollars, and about one-fourth of notes for sums less than five dollars. The notes for sums less than five dollars were chiefly for one dollar, two dollars, and three dollars; and a great portion of them consisted of notes for one dollar.

The power to establish banks was claimed and exercised by the government of the United States, and also by each of the states. There were then in the United States about five hundred incorporated banks, and the number is annually increased. The public revenue of the United States, and of every one of the states, was collected and disbursed almost wholly in bank notes. The coin held by the banks, and in circulation among the people, was silver. All the coin in common circulation, and most of that held by the banks, was half-dollars and the minor silver pieces.

It will have been perceived, that the subject of coinage is eventually interwoven with that of the use of bank notes. Before we leave this subject, therefore, we shall notice the bank of the United States—an institution, the existence of which, on constitutional grounds, formed the subject of considerable discussion in the republic at that time.¹ The old bank of the United States was incorporated by an act of congress, approved in February, 1791. By the limitation of the charter, it was to expire on the 4th of March, 1811. This, like the banks of England and France, was a bank of deposit, discount, and circulation, with a capital of 10,000,000 dollars. Those European writers, both British and French, who have eulogized this institution as being purely commercial, and distinguished from those of England and France by not being connected with the government, or an engine of finance, cannot have read the charter, the preamble to which begins thus: "Whereas the establishment of a bank will be very conducive to the conducting of the national finances, will tend to give facility to the obtaining of loans for the use of the government in sudden emergencies, and will be productive of considerable advantages to trade and industry in general," &c. Instead of being a merely commercial establishment, therefore, it was, essentially and mainly, of a financial and political character, and it was on this ground that its constitutional character was defended; the right of congress to grant such a charter being claimed mostly upon the strength of that clause of the constitution, which gives to congress the authority necessary for carrying into execution the powers enumerated, and expressly vested in that body. The origin of this establishment was, therefore, similar to that of the bank of England, and the resemblance is not limited to the general purposes of its institution; for, as the bank of England originated in a loan to the British government, so the act by which the old bank of the United States was chartered, provided that the sums subscribed by individuals and corporations should be "payable, one-fourth in gold and silver, and three-fourths in the public debt" certificates. The president of the United States was authorized to subscribe for two millions of the stock in

¹ For this statement respecting the United States bank, we with pleasure acknowledge our obligations to that ably conducted work, the *Encyclopædia Americana*. Although we have read much in various American publications upon the subject, the statements of the editors appeared to us so correct, and their views so just, that we found it unnecessary to do more than to add the state of the bank at a period somewhat later than that work contains.

behalf of the United States. The directors, being twenty-five, were chosen by the stockholders, without any interference on the part of the government in the election; but the government reserved the right of inspecting the affairs of the bank, and, for this purpose, the secretary of the treasury was authorized to demand of the president and directors a statement of its concerns as often as he might see fit. The corporation was authorized to establish branches in any part of the United States. The only restriction, as to circulation, was, that the amount of debts due from the corporation by bond, bill, note, or otherwise, besides the debts due for deposits, should never exceed 10,000,000 dollars; and, in case of excess, the directors, by whose agency such debt should be incurred, were made personally answerable. This bank went into operation, and had a most powerful agency in establishing the credit of the government, facilitating its financial operations, and promoting the interests of industry and commerce. Congress having refused to renew the charter, it expired by its own limitation, in 1811.

During the war, however, the want of a national bank was severely felt, not only as an agent for collecting the revenues, but more especially for transmitting funds from one part of the country to another; and then it might have been a useful auxiliary to public credit, by supplying temporary loans in cases of emergency. So thoroughly convinced were the public of the necessity of such an institution, that the members of the same political party by which the constitutional objections had been made to the old bank, and which had refused to renew its charter, passed an act of congress, which was approved by the president April 10, 1816, chartering the present bank of the United States, with a capital of 35,000,000 dollars, upon principles, and with provisions, very similar to those contained in the former charter. For this charter the government demanded and received a bonus of 1,500,000 dollars from the stockholders. The government became a stockholder in the same proportion as in the former bank, taking one-fifth, or 7,000,000 dollars of the stock. The direction of the institution was left to the stockholders, as in the old bank, except that the government reserved the right of appointment and removal at pleasure, by the president, of five directors out of the twenty-five, the other twenty being elected by the stockholders. The government also reserved the right to demand a statement of the concerns of the institution by committees of either branch of the legislature. One quarter of the subscriptions to the stock were payable either in gold and silver or United States stock, at the option of subscribers. The seven millions to be subscribed by the government was payable either in gold and silver or public stock, at an interest of five per cent., at the option of the government. The transactions of the corporation were limited to making loans and trading in the precious metals, and the sale of such goods or proceeds of such lands as should be pledged. Branches may be established in any parts of the United States or their territories. No other similar corporations

are to be chartered by the government, except banks in the district of Colombia, with a capital, in the whole, not exceeding 6,000,000 dollars, during the period for which the charter was granted, namely, to the 3d of March, 1836. The bank is prohibited from purchasing any part of the public debt, taking interest above six per cent., or lending to the government more than 500,000 dollars, or to any state more than 50,000 : and the debts of the institution are in no case to exceed the amount of deposits by more than 35,000,000 dollars. In case of refusing payment of its notes or deposits in specie, the bank is made liable to pay interest at the rate of twelve per cent. per annum. The bank is also obliged, by its charter, to give the government the necessary facilities for transferring the public funds from place to place within the United States, without charging commissions, or claiming any allowance on account of the difference of exchange, and to transact all the business of commissioners of loans whenever required so to do. The bank is prohibited from issuing bills under the denomination of five dollars.

It is an object proposed by the charter, as appears from some of the provisions already noticed, to make the institution independent of the fortunes, and place it beyond the exigencies, of the government, by limiting the amount of loans that may be made to the government, and prohibiting the purchase of the public debt. It is not in the power of congress to exonerate the bank from the liability to pay, in specie, its deposits made, or notes put into circulation, previously to the passing of any act for that purpose ; so that the depositors and holders of its notes are entirely secure from any interposition of the government between themselves and the bank, in violation of the contract held by them. The institution is thus essentially commercial in its character, being directly auxiliary to the government, and subject to its control, only as a financial engine. It has had an important influence upon the industry and commerce of the country and the credit of the government, and has been of immense utility in the management of its finances. But its greatest and most beneficial influence has been felt in the restoration of the currency to a sound state ; for, at the time of its going into operation, many of the state banks had an immense amount of unredeemable paper in circulation, purporting, it is true, to be payable to the bearer in specie, on presentment for that purpose, but which was not, in fact, so paid. Immediately on the bank of the United States going into operation, with its various branches in the principal commercial cities, it became necessary for all the other banks within the circle of its influence to resume specie payments, or discontinue their operations. Those which had not resources to resume specie payments necessarily stopped ; and the consequence of the influence of this institution is a complete restoration of the currency to specie, or its equivalent. In fine, whether we consider the extent of the capital of the institution, that of its operation, or its commercial and financial utility and influence, it may justly be considered the second institution of the kind in the

world, ranking, in all these respects, next after that of England. The stock was made the subject of speculation soon after its establishment, and rose, at one time, to the enormous advance of fifty-six per cent. upon the original subscription; but the great losses incurred by some of the branches, especially those of the new states, and other causes, subsequently reduced it to ten per cent. discount on its original value. It has since risen to a more steady market-value of from twenty to twenty-five per cent. advance. The amount of the circulation for 1828 was between 12,000,000 and 13,000,000 dollars. The deposits for the same year averaged from 13,000,000 to 14,000,000. The dividends have varied from five to six per cent.^m Besides the principal bank, there were in January, 1830, twenty-two offices of discount; namely, at Portland, Portsmouth, Boston, Providence, Hartford, New York, Buffalo, Pittsburg, Baltimore, Washington, Richmond, Norfolk, Fayetteville, Charleston, Savannah, Mobile, New Orleans, Nashville, Lexington, Louisville, Cincinnati, and St. Louis. The state of the bank, April 1, 1830, was as follows:—

^m The present secretary of the treasury, Mr. M'Lane, in his Finance Report for 1831, judiciously observes,—
 “The indispensable necessity of such an institution for the fiscal operations of the government in all its departments, for the regulation and preservation of a sound currency, for the aid of commercial transactions generally, and even for the safety and utility of the local banks, is not doubted, and, as is believed, has been shown in the past experience of the government, and in the general accommodation and operations of the present bank. The present institution may, indeed, be considered as peculiarly the offspring of that necessity, springing from the inconveniences which followed the first loss of the bank of the United States, and the evils and distresses incident to the excessive, and, in some instances, fraudulent issues of the local banks during the war. The propriety of continuing it is to be considered not more in reference to the expediency of banking generally, than in regard to the actual state of things, and to the multiplicity of state banks already in existence, and which can neither be displaced, nor in other manner controlled, in their issues of paper, by the general government. This is an evil not to be submitted to; and the remedy at present applied, while it preserves a sound currency for the country at large, promotes the real interests of the local banks by giving soundness to their paper. If the necessity of a banking institution be conceded or shown, that which shall judiciously combine the power of the government with private enterprise, is believed to be most efficacious. The government would thus obtain the benefit of individual sagacity in the general management of the bank; and, by means of its deposits and share in the direction, possess the necessary power for the prevention of abuse.

“It is not intended to assert that the bank of the United States, as at present organized, is perfect, or, that the essential objects of such an institution might not be attained by means of an entirely new one, organized upon proper principles, and with salutary limitations. It must be admitted, however, that the good management of the present bank, the accommodation it has given the government, and the practical benefits it has rendered the community—whether it may or may not have accomplished all that was expected from it—and the advantages of its present condition, are circumstances in its favour entitled to great weight, and give it strong claims upon the consideration of congress in any future legislation upon the subject. To these may be added, the knowledge the present bank has acquired of the business and wants of the various portions of this extensive country, which, being the result of time and experience, is an advantage it must necessarily possess over any new institution. It is to be observed, however, that the facilities of capital actually afforded by the present institution to the agricultural, commercial, and manufacturing industry of all parts of the Union, could not be withdrawn, even by transferring them to another institution, without a severe shock to each of those interests, and to the relations of society generally. [It has been seen that the American government, at a period distant from this some few years, took, on grounds already stated, a different view of the merits of this institution. See Vol. I., p. 936.]

	Dollars.	Cents.
Notes discounted	32,138,270	89
Domestic bills discounted	10,506,882	54
Funded debt held by the bank	11,122,530	90
Real estate	2,891,890	75
Funds in Europe, equal to specie	2,789,498	54
Specie	9,043,748	97
Public deposits	8,905,501	87
Private deposits	7,704,256	87
Circulation	16,083,894	00

The expenditure of the United States is divided into four departments: the civil list, which includes the salaries paid to all the political, judicial, and diplomatic functionaries of the general government, both at home and abroad, as well as a large amount for miscellaneous items; the military establishment, including Indian affairs and internal improvements; the naval establishment; and the public debt. The last of them is an item which will probably not appear in any finance report after the present, or, at any rate, the following year. At the close of this chapter we have given a detailed statement of the expenditure of the United States for the year 1829, extracted from the appendix of the Finance Report for that year. It speaks volumes in favour of the government from which it issues. Here are no attempts at concealment—no appropriations obtained for one object and devoted to another—but a simplicity of statement worthy of the utility of the objects to which the revenue is devoted; indeed, the statement is so clear and satisfactory, that any American who can read cannot fail to apprehend the manner in which its funds are appropriated.

Having put our readers in possession of this document, it will be only necessary for us to make some general observations on the principal items in each department of the expenditure. The whole amount of the civil list for the year 1829, including miscellaneous and foreign intercourse, was 3,101,514 dollars; of this sum 1,327,069 only belong properly to the civil list, the remainder belonging to the miscellaneous (1,566,679) and to the diplomatic departments (207,765); and even then the civil list is charged with disbursements which are not connected with it in other countries, the legislature receiving 467,447, the judiciary 239,447, and the governments of the territories 55,344, besides several other items; leaving for the whole executive department only 530,172 dollars, or little more than 100,000*l.* sterling. The first item in the disbursements is the salary of the president, 25,000 dollars, about 5,000*l.* sterling. The vice-president has only one-fifth of that sum; the secretaries of state, of the treasury, of war, of the navy, and the post-master-general, receive 6,000 dollars annually; the attorney-general 3,500; the chief clerks to each of the secretaries

2,000. In the treasury department the comptroller receives 3,500; and the second comptroller 3,000; five auditors, the treasurer, and registrar, 3,000 each; the solicitor to the treasury 3,500; and the commissioner of the land office 3,000. In the judiciary, the chief-justice of the supreme court of the United States receives 5,000 annually; and six associate justices 4,500. In the foreign intercourse nearly half the amount of the disbursement is for expenses of treaties and other contingencies. The plenipotentiaries at foreign courts receive only 9,000 dollars per annum, besides 9,000 for an outfit; a chargé d'affaires receives a salary of 4,500; and a secretary of legation 2,000. There are employed six plenipotentiaries, with a secretary of legation attached to them, and ten chargé d'affaires. We apprehend that our readers on both sides of the Atlantic will concur in the observations of Mr. McLane on the amount of remuneration received by the ministers to foreign courts; and many will probably be inclined to extend the principle to other officers of the republic. "The salaries of the public ministers abroad," observes Mr. M. "must be acknowledged to be utterly inadequate, either to the dignity of the office, or the necessary comforts of their families. At some foreign courts, and those whose relations towards the United States are the most important, the expenses incident to the station are found so burdensome as only to be met by the private resources of the minister. The tendency of this is to throw those high trusts altogether into the hands of the rich, which is certainly not according to the genius of our system. Such a provision for public ministers as would obviate those evils, and enable the minister to perform the common duties of hospitality to his countrymen, and promote social intercourse between the citizens of both nations, would not only elevate the character of his country, but essentially improve its public relations."^a

Among the miscellaneous items are the mint establishment, 85,931 dollars; the lighthouse establishment, 289,149; surveys of public lands, 51,289; marine and navy hospitals, 188,562; public buildings at Washington, 74,114; shares in several canal companies, 468,500; and revolutionary claims, 288,446. It is impossible to close this brief account of the civil list of the United States without expressing a sincere admiration of the purposes to which its funds are devoted. Not only is the catalogue of its expenditure free from those corruptions which either are too gross to be clearly expressed, or if stated fill the mind with a just indignation; but it is to us surprising how large a portion of the funds are made directly to bear on the welfare of the people themselves, either in the shape of internal improvement, (which, while it promotes commercial advantage, by facilitating the communications between the sea-ports and the states of the interior, confers scarcely a less benefit in the well remunerated occupation it affords to the labourer), or of hospitals, or lighthouses, or other simi-

^a Finance Report for 1831, p. 15.

objects; while the amount paid in salaries to a few individuals cannot possibly be deemed either burdensome to the nation, or corrupting to the possessors of office.

The amount under the head Military Establishment (6,267,626 dollars,) is nearly half the gross sum expended by the government, exclusive of that devoted to the liquidation of the public debt; but a very large proportion of it is applied to purposes, either not at all, or very indirectly, connected with military affairs. The amount for pay, subsistence, clothing, medicines, recruiting, and contingencies, is little more than two millions of dollars. This amount is found sufficient to keep on foot an army of 6,000 men, to which the peace establishment was reduced (from 10,000) in 1821. The force consists of the general staff, 119; comprising, medical department, pay and purchasing departments, a corps of military and a corps of topographical engineers; four regiments of artillery, consisting of 545 officers and men, with supernumeraries, amounting to 2,240; and seven regiments of infantry, consisting of 547 officers and privates, amounting to 3,829: total organized force, 6,188.* In the armouries, arsenals, and ordnance, armament of fortifications, and arming and equipping the militia, there were disbursed, in 1830, nearly one million of dollars; and in the construction of fortifications, and in the erection of barracks, were expended about 800,000 dollars. The military academy at West Point, an interesting and important institution, an account of which will appear in a subsequent section of the work, requires nearly 28,000 dollars annually: and this closes the list of expenses strictly military, making in the whole, 3,800,000 dollars. The remaining two and a half millions are expended in the erection of breakwaters, and other improvements of harbours; in deepening and improving the navigation of the Mississippi, Ohio, and about thirty other rivers or harbours; and in the construction or repair of the Cumberland, and twelve other lines of road. The pensions for soldiers who devoted their lives and fortunes to the great cause of the revolution, amount to 764,492 dollars: it must therefore be admitted, even by the most bitter opponents of republicanism, that it has improved since the days of the splendid barbarians of Sparta and of Athens, whose ingratitude to their most devoted patriots has ever been a reproach, which the conduct of the modern Greeks has tended to confirm rather than to remove. With the exception of a few miscellaneous items of little importance, the remainder is disbursed in the department of Indian affairs; the annuity to Indians, in the fulfilment of treaties for the payment of lands, the title of which has been conveyed by the several tribes to the United States, amounting, for the year 1829, to 245,108 dollars, and various other payments, among which we find one, and one only, for "schools" for an Indian tribe, making the sum total half a million of dollars. Before taking leave of the details of the expenditure

* American National Calendar for 1830.

in the military department, it may not be improper to suggest to those who may feel desirous to ascertain the present defensive power of the United States, in comparison with that of 1814, that it will amply repay their attention, if they will note on a map the points in fortifying which the government are annually expending a large sum. We are the more induced to make this observation, from a conviction that a compliance with it will tend to promote the growth of that just respect which is the true basis of political friendship between nations, and which some of the leading literary publications of the day have so pertinaciously laboured to prevent or to destroy.

The navy has always been a favourite object in the United States, as in Great Britain; and, from the flourishing state of the revenue, it will probably receive increased support. The amount disbursed annually in the navy establishment is about three and a quarter millions of dollars, of which a considerable portion is devoted to its gradual improvement, by the accumulation of stores, the erection of dry docks, and the building of additional vessels. In 1830, the United States navy consisted of seven sail of the line, all of which were laid up in ordinary; seven frigates of the first class, of which three were in ordinary, and four in commission; three frigates of the second class, of which one was a receiving ship, one in actual service, and one in ordinary; fifteen sloops, of which two were in ordinary, and the remainder on different foreign stations; seven schooners, of which three were in employ as receiving ships, one in ordinary, and two in commission. There were also five ships of the line and seven frigates in such a state of forwardness, that they could be ready for sea in from three to six months. There were seven navy yards maintained by the government in different states of the Union, for an account of which we must refer to the topography of the states in which they are located. Although we are compelled, by the limits of our undertaking, to condense our information as much as possible, there are some passages in the report of the secretary of the navy, then presented to congress, indicative of the progress of this department, too interesting to be omitted. "The construction of the two dry docks," says the secretary, Mr. Woodbury, "has advanced with great rapidity during the past year. Both are now mostly completed, except the removal of the coffer dams, and the finishing of some of the gates and steam machinery. They present to the eye specimens of stone masonry seldom rivalled in beauty and solidity. The expenditures on each have been about 500,000 dollars; and by the 4th of next July, it is hoped, that some of the public vessels requiring repairs may be safely docked in these useful, economical, and splendid conveniences for our naval establishment. The buildings for accommodation to the officers of yards, reported in the surveys and plans of A. D. 1828, are in progress where most needed, and, in connexion with the storehouses, sheds, wharfs, walls, and shipways, require, annually, such appropriations as can be expended without a neglect of more urgent duties.—An increased estimate, to advance all these

improvements, is presented for the ensuing year. Among other contemplated improvements in those plans, were ropewalks at some of our present yards. All observation and experience in the navy show, that in nothing does it suffer more at this time than from bad cordage. The impositions in the quality of the hemp, in the manufacture, and in the tar, are numerous, are difficult of detection, productive of injurious delays when detected, and when not detected, exceedingly hazardous to the safety of both crews and vessels.—The vessels in ordinary have been at most of the yards, covered, so as to shelter them effectually from sunshine and storms, and to render their security from decay much greater than heretofore. It is a gratifying circumstance, that most of these vessels, as well as those upon the stocks, are in a condition highly creditable to the persons who planned and executed the present mode of preserving them; and that, by proper care in future, until put in commission, no probability whatever exists of much further decay in the important portions of their expensive works, or of any decay in those portions composed of the invaluable material of live oak. The whole purchases of timber and stores, under the act for the gradual increase of the navy, and which remain in deposit at the yards, are over a million and a half in value. The amount of purchases, under the act for the gradual improvement of the navy, in deposit, is nearly half a million. The amount of property on hand for repairs is almost a million. The ordnance, provisions, &c. amount to upwards of a million and a half more.”—It is most sincerely to be wished, that the vigorous attention which the government of the United States devote to the subject of their naval power, may not only tend to secure and perpetuate their peaceful relations with foreign powers, but to moderate the notions of a few overheated individuals, who would apparently rather make an effort to dissolve their connexion with the Union, than acquiesce in an arrangement which, while certainly beneficial to a very large portion of the republic, is very slightly, if at all, injurious to themselves.

If satisfaction has been felt in the management of the funds of the several departments already noticed, who can withhold the meed of praise and congratulation when the state of the public debt of the republic is developed? The Table No. IV., at the close of this chapter, exhibits operations of finance such as, we believe it may be safely asserted, no nation has ever before achieved. On some points, indeed, it has been a subject of dispute, whether the example of America has been benefical or injurious; but surely all must concur in the opinion, that in being the first nation to annihilate her national debt, not by any “equitable adjustment,” nor by following the example of the ‘beloved’ Ferdinand, but by the legitimate mode of direct payment, the nation is placing a laurel on her brow that will wear its greenness when the trophies of mere military prowess are faded and turned to dust. In 1817, owing to the war with Great Britain, the public debt of the United States amounted to nearly 116 millions of dollars, or about 25 millions sterling. In comparison with our own debt,

indeed, this may appear trifling; but when the circumstances and resources of the two countries are considered, the Americans may well be excused for deeming it large and oppressive. During twelve years it was reduced to fifty-eight millions of dollars, which was the amount when General Jackson ascended the presidential chair. Fortunate in his military career, he was thought not to be forsaken in his political course; it was his aim to render his administration celebrated, by accomplishing the entire liquidation of the public debt before the expiration of his presidency. During the first three years of his administration the amount had been reduced from 58,362,138 to 24,322,235 dollars. The whole of this amount, the secretary, in accordance with "the views of the president," proposed to liquidate before the 3d of March, 1833. "The occasion," observed Mr. M'Lane, "is deemed a propitious one to bring before the legislature the subject of the debt, with a view to its redemption, at a period, not only earlier than has been heretofore anticipated, but before the termination of the present congress.

	Dolls.	cts.
"The entire public debt on the 2d of January 1833, as has been already shown, will amount to.....	24,322,235	18
The amount of the receipts into the treasury during the year 1832, after satisfying all the demands of the year, other than on account of the public debt, are estimated, as above, at.....	16,734,797	84
To this may be added the balance in the treasury on the 1st of January, 1832, (exclusive of the ineffective funds and the Danish indemnity,) at.....	1,208,276	24
From this aggregate of.....	17,943,074	08
After deducting the amount of the unsatisfied appropriations already estimated at.....	3,423,525	87
There will remain a surplus in the year 1832, of.....	14,519,548	21
Which, unless congress should enlarge the appropriations for other objects, may be applied to the public debt.		
The interest on the debt during the year 1832 may be estimated at.....	500,000	00
Leaving for the principal in that year.....	14,019,548	21
Which, being applied to that object, will leave the total amount of the public debt at the close of the year 1832.....	10,302,686	97
The government, however, has other means, which, if congress see proper, may be applied towards the payment of the debt, viz. the shares in the bank of the United States, amounting at par to 7,000,000 dollars; but which, as will be presently explained, may be estimated at not less than.....	8,000,000	00
In that event, the amount of the debt on the 1st of January, 1833, would be but	2,302,686	97

Which sum, together with a fair allowance for the cost of purchasing, at the market price, the stocks not redeemable in the course of the proposed operation, might be supplied in the months of January and February, 1833, by the application from the revenues of that year of a sum equal to two-twelfths of the amount applied from the ordinary revenues to the debt of the year 1832, say.....

2,503,258 02

“ It may be further observed, that should any diminution take place in the estimated revenue, or should the expenditure exceed the estimated amount, the deficiency which either event might produce in the means of the treasury applicable to the debt, would be supplied by the amount reserved in this estimate for the unsatisfied balances of appropriations; for, although that sum constitutes a legal charge on the treasury, to be met as occasion requires, yet, in any estimate of present means, it may be considered rather as a nominal than a real charge. It will be thus perceived, that the government has the means, if properly employed, of reimbursing the whole of the public debt, by purchase, or otherwise, on or before the 3d of March, 1833. The moral influence which such an example would necessarily produce throughout the world, in removing apprehension, and inspiring new confidence in our free institutions, cannot be questioned. Seventeen years ago, our country emerged from an expensive war, encumbered with a debt of more than 127 millions, and in a comparatively defenceless state. In this short period it has promptly repealed all the direct and internal taxes which were imposed during the war, relying mainly upon revenue derived from imports and sales of the public domain. From these sources, besides providing for the general expenditure, the frontier has been extensively fortified, the naval and maritime resources strengthened, and part of the debt of gratitude to the survivors of the revolutionary war discharged. We have, moreover, contributed a large share to the general improvement; added to the extent of the Union, by the purchase of the valuable territory of Florida; and, finally, acquired the means of extinguishing the heavy debt incurred in sustaining the late war, and all that remains of the debt of the revolution.”^p

We most cordially congratulate the government and the people of the United States on the happy prospect of being free from the incubus which weighs down the energies of other nations; and most sincerely hope that the novel and extraordinary difficulty which has come upon them, of having to dispose of, or to reduce, a revenue nearly twice the amount of the expenditure, may not be attended with any of the injurious consequences arising from party violence and internal dissensions, that present circumstances appear to indicate. As the subject connects itself directly with a question of the utmost importance to the interests of commerce and of manufactures on both sides of

the Atlantic, it will be desirable for our readers to be put in possession of the views of the administration of that day, whatever variations may subsequently be remarked with or without the concurrence of the legislature of the United States. "Whatever room there may be," says the secretary of the treasury, "for diversity of opinion with respect to the expediency of distributing among the several states any surplus revenue that may casually accrue, it is not doubted that any scheme for encouraging a surplus for distribution, or for any purpose which should make it necessary, will be generally discountenanced.—There is too much reason to apprehend that a regular, uniform dependence of the state governments upon the revenue of the general government, or an uniform expectation from the same source, would create too great an incentive to high and unequal duties, and not merely disturb the harmony of the Union, but ultimately undermine and subvert the purity and independence of the state sovereignties.

"To distribute the duties in such a manner, as far as that may be practicable, as as to encourage and protect the labour of the people of the United States from the advantages of superior skill and capital, and the rival preferences of foreign countries,—to cherish and preserve those manufactures which have grown up under our own legislation, which contribute to the national wealth, and are essential to our independence and safety, to the defence of the country, the supply of its necessary wants, and to the general prosperity,—is considered to be an indispensable duty. The vast amount of property employed in the northern, western, and middle portion of the Union, upon the faith of our own system of laws, and in which the interests of every branch of our industry are involved, could not be immediately abandoned without the most ruinous consequences. The various opinions by which the people of the United States are divided upon this subject, concern the peace and the harmony of the country, and recommend an adjustment on practical principles, rather than with reference to any abstract doctrines of political economy. The objects more particularly requiring the aid of the existing duties, upon the principles of this report, are believed to be wool, woollens, cotton, iron, hemp, and sugar, as comprehending those articles in which the agricultural and manufacturing industry are more particularly interested. Upon these articles, the average duty collected in the years 1829 and 1830 amounted to 8,940,593 dollars. These duties could not be materially changed at present, without the effect already deprecated. No objection is perceived, however, to such gradual reduction of them in future as may withdraw the aid thus afforded, as the growth and stability of our manufactures will enable them to dispense with it, to such a degree at least, as will, with the aid of an increase of population, and the means of consumption, still leave a revenue adequate to the expenditures; or until what may be withdrawn from them may be levied on other articles which may be found to admit of it. The additional sum, which,

together with the amount of those duties, it may be necessary for congress to provide, in a re-adjustment of the tariff, will depend upon its decision as to confining the expenditures to the present objects, or of enlarging them, as herein suggested. In the former case, the sum of 4,559,607 dollars,—and in the latter, the sum of 6,059,607 dollars will be required; and, in regard to either estimate, the provision should be upon a scale sufficiently liberal to guard against the chance of a deficiency. In providing for either sum, the duties may be advantageously retained upon articles of luxury, or those which are principally consumed by the wealthier classes, or upon those not abundantly produced in the United States, in preference to others. At the same time, the duties may be removed from such raw materials as will admit of it without detriment to our agriculture; whereby the manufacturers would be enabled to sell cheaper, and also, the sooner to dispense with a part of the duties which may be at present retained for their protection. If the adjustment suggested to congress, by the views hazarded in this report, be in any wise entitled to their respect, it is not unreasonable to hope that the various topics of national concern, at present engaging the attention of the people, may facilitate rather than embarrass the task."^a

All who desire the welfare of the human race, with which the success of the principle on which the political arrangements of the United States are founded is so essentially connected, will unite in the hope, or at least the desire, that the opinion expressed in the last sentence quoted from Mr. M'Lane may prove to be correct. Of this, many, however, entertain serious fears. Might it not be for the general good of the republic, if all the excess of revenue derived from maintaining the protecting duties were divided among the states who deem themselves injured? If a judicious arrangement of this nature were effected, would not all parties be benefited? If the accounts given of the injury sustained by South Carolina be correct, and the surplus revenue were proportionably divided, would not Charleston, by its magnificent edifices, and its improved communications with the interior, become one of the wealthiest and proudest cities, not only of the republic, but of the world? Or would her inhabitants still be unhappy, unless the rising towns of the north, the west, and the middle states were depopulated?

^a Finance Report, 1831, pp. 21, 23, 25, 30.

FINANCES.—TABLE I.
RECEIPTS OF THE UNITED STATES, FROM MARCH 4, 1879, TO DECEMBER 31, 1880.

Years.	Customs.	Internal Revenue. ¹	Direct Taxes. ²	Postage.	Public Lands.	Loans and Treasury Notes, &c.	Dividends and sales of Bank Stock and Bonds.	Miscellaneous.	Total.
	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.
From March 4, 1879, to December 31, 1791	4,390,473 09	208,942 81	..	..	..	5,791,119 56	..	10,440 10	10,210,025 75
1792	3,443,070 85	337,705 70	..	11,020 81	..	8,028 00	8,028 00	9,018 63	8,740,765 77
1793	4,255,306 56	274,089 62	..	22,406 00	..	1,067,701 14	38,500 00	10,390 67	5,790,024 38
1794	4,801,005 28	337,755 60	..	22,406 00	..	4,600,760 78	303,472 00	23,799 48	10,641,101 65
1795	5,384,401 30	337,755 60	..	72,500 84	..	3,805,268 20	1,000,000 00	6,917 97	9,419,323 65
1796	7,540,549 65	575,401 45	..	64,509 00	..	362,800 00	1,240,000 00	30,729 20	8,758,016 40
1797	7,106,061 93	644,357 05	..	39,500 00	..	70,135 27	79,020 00	18,562 81	8,209,070 07
1798	6,610,449 31	779,130 44	..	41,000 00	..	1,196,311 00	71,040 00	45,167 50	12,621,459 84
1800	9,080,932 73	1,806,395 53	754,223 97	78,000 00	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1801	10,750,779 93	1,948,033 43	754,223 97	78,000 00	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1802	12,436,242 61	2,131,359 69	206,565 44	35,000 00	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1803	11,098,565 33	60,041 20	50,108 44	16,427 20	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1804	12,036,487 04	21,747 15	21,883 91	21,342 69	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1805	14,667,698 17	20,101 45	55,763 86	41,117 07	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1806	15,845,521 61	13,051 40	34,732 06	5,014 73	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1807	10,363,560 68	4,210 73	7,617 31	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1808	6,585,309 31	7,430 63	12,448 68	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1809	8,958,777 53	4,903 05	7,666 66	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1810	13,224,523 25	4,755 04	8,805 22	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1811	6,998,779 08	1,062,984 82	2,163 67	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1812	5,282,342 88	5,124,708 31	4,253 635 09	140,787 74	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1813	26,283,348 40	2,075,100 77	1,834,187 04	29,371 91	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1814	17,176,585 76	955,279 20	264,333 36	20,070 00	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1815	20,283,598 76	229,353 63	83,650 79	6,316 81	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1816	15,005,012 15	106,200 63	31,586 82	6,316 81	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1817	13,004,447 15	67,655 73	20,601 56	602 04	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1818	10,988,533 44	34,243 17	10,357 71	110 09	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1819	20,098,713 45	25,771 35	2,330 85	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1820	19,712,283 29	21,569 93	6,038 76	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1821	23,665,665 91	19,845 98	2,919 81	20 15	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1822	17,878,323 71	14,404 74	11,321 20	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1823	20,098,713 45	25,771 35	2,330 85	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1824	19,712,283 29	21,569 93	6,038 76	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1825	23,665,665 91	19,845 98	2,919 81	20 15	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1826	24,767,123 23	24,767 12	..	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1827	24,767,123 23	24,767 12	..	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1828	24,767,123 23	24,767 12	..	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1829	24,767,123 23	24,767 12	..	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
1830	21,022,301 39	..	..	..	..	1,602,435 04	88,800 00	206,149 15	12,945,435 81
Total	542,919,386 28	22,304,438 03	12,702,597 11	1,020,275 91	34,732,883 94	156,181,578 67	9,903,660 30	4,775,663 15	783,809,781 29

¹ From the year 1803 to 1813, and subsequently to 1818, there were no internal taxes, the receipts being only arrears from former years.
² From 1803 to 1813, and subsequently to 1817, there were no direct taxes, the receipts being only arrears.

FINANCES.—TABLE II.
EXPENDITURE OF THE UNITED STATES FROM MARCH 4, 1789, TO DECEMBER 31, 1829.

Years.	Civil List.	Foreign Intercourse.	Miscellaneous.	Public Debt.	Naval Establishment.	MILITARY ESTABLISHMENT.				Indian Department.	TOTAL.	Balances in the Treasury at the end of each Year.
						Military services, including Fortifications, Armories, and other improvements, &c.	Revolutionary Pensions.	Other Pensions.				
From March 4, 1789, to	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.	Dollars. Cts.
Dec. 31, 1791	787,134 45	14,753 33	311,553 83	5,827,649 50	570 00	632,894 03	..	175,813 88	37,000 00	7,207,539 02	973,905 75	783,601 69
— 1793	388,241 08	75,760 07	19,572 32	7,385,065 99	53 02	1,190,290 09	..	109,947 81	18,648 65	9,141,569 07	783,444 81	743,601 69
— 1794	440,643 58	118,248 30	118,248 30	5,801,278 09	..	2,659,097 59	..	80,907 15	27,432 63	7,528,575 55	743,601 69	743,601 69
— 1795	361,633 36	912,685 12	92,718 50	6,084,411 61	41,502 97	2,480,910 13	..	81,599 24	13,042 46	8,302,124 74	1,181,924 17	1,181,924 17
— 1796	447,139 03	184,859 64	150,476 14	5,835,546 44	274,784 64	1,260,263 86	..	68,975 22	23,475 08	8,435,069 05	610,442 01	610,442 01
— 1797	483,233 70	669,788 54	166,890 82	7,792,431 82	382,631 99	2,630,403 66	..	100,843 71	113,663 98	8,907,776 84	888,995 42	888,995 42
— 1798	544,065 76	97,328 74	175,015 15	3,466,775 14	382,631 99	2,480,910 13	..	62,220 37	16,750 80	8,626,012 78	1,021,899 04	1,021,899 04
— 1799	798,658 45	305,268 19	105,656 59	4,578,566 95	3,466,775 14	2,480,910 13	..	95,444 73	20,302 10	11,077,043 30	2,161,667 77	2,161,667 77
— 1800	748,688 45	295,676 73	295,803 41	7,201,707 04	2,111,434 00	2,550,578 77	..	65,130 73	31 22	11,959,739 94	3,291,301 00	3,291,301 00
— 1801	596,981 11	550,925 03	315,022 36	7,539,004 76	915,561 87	1,179,146 25	..	73,533 37	9,000 00	12,275,376 94	3,623,311 99	3,623,311 99
— 1802	626,583 12	1,110,834 77	205,217 87	7,256,169 43	1,215,230 53	822,055 85	..	85,440 39	94,000 00	13,275,084 07	5,029,967 64	5,029,967 64
— 1803	684,705 03	1,186,655 57	379,538 23	8,171,787 45	1,186,655 57	822,055 85	..	62,099 10	66,000 00	14,275,084 07	4,925,911 00	4,925,911 00
— 1804	684,705 03	1,186,655 57	379,538 23	8,171,787 45	1,186,655 57	822,055 85	..	62,099 10	66,000 00	14,275,084 07	4,925,911 00	4,925,911 00
— 1805	685,840 79	279,028 77	384,240 19	8,390,869 79	1,597,500 44	1,721,281 38	..	81,854 59	196,600 00	13,727,134 41	3,980,388 99	3,980,388 99
— 1806	684,230 53	1,769 42 30	445,485 18	9,899,584 61	1,619,641 44	1,254,353 91	..	81,875 53	234,200 00	15,076,093 97	4,538,123 80	4,538,123 80
— 1807	654,524 65	577,856 34	464,546 52	6,307,729 10	1,722,004 47	1,286,891 91	..	70,500 00	205,425 00	11,299,292 97	9,643,850 07	9,643,850 07
— 1808	691,167 80	364,922 83	427,124 98	10,350,245 35	1,184,067 80	2,980,834 40	..	82,570 04	121,575 00	16,761,584 20	9,941,809 90	9,941,809 90
— 1809	712,465 13	166,306 04	337,032 62	6,452,354 16	2,327,758 80	9,900,834 40	..	82,570 04	121,575 00	16,761,584 20	9,941,809 90	9,941,809 90
— 1810	703,994 03	81,367 48	315,833 47	8,008,904 46	1,654,244 29	2,980,834 40	..	87,833 54	327,503 84	13,867,296 30	8,848,056 75	8,848,056 75
— 1811	644,407 27	261,904 47	457,919 06	8,008,904 46	1,654,244 29	2,980,834 40	..	82,744 16	177,125 00	13,160,968 01	8,848,056 75	8,848,056 75
— 1812	703,994 03	81,367 48	315,833 47	8,008,904 46	1,654,244 29	2,980,834 40	..	82,744 16	177,125 00	13,160,968 01	8,848,056 75	8,848,056 75
— 1813	780,545 45	209,941 01	739,949 16	11,108,128 44	6,446,600 10	10,652,013 02	..	60,099 91	167,358 28	32,270,120 35	3,562,305 80	3,562,305 80
— 1814	827,424 23	177,179 07	1,739,425 50	7,900,543 94	7,311,290 60	20,350,906 68	..	86,969 91	167,358 28	39,100,120 35	5,196,542 01	5,196,542 01
— 1815	825,247 16	280,892 04	1,735,731 27	12,628,922 35	8,000,000 25	14,794,394 22	..	69,650 05	539,750 00	39,028,230 32	1,727,848 65	1,727,848 65
— 1816	1,208,125 77	364,620 40	1,416,995 00	24,871,062 93	3,008,278 30	16,012,096 80	..	188,894 15	274,512 16	39,842,493 35	13,100,592 88	13,100,592 88
— 1817	994,566 17	281,995 97	2,242,334 62	25,423,036 12	3,214,599 49	8,000,234 53	..	287,275 13	274,512 16	48,244,405 51	24,035,519 18	24,035,519 18
— 1818	1,169,569 79	281,995 97	2,242,334 62	25,423,036 12	3,214,599 49	8,000,234 53	..	287,275 13	274,512 16	48,244,405 51	24,035,519 18	24,035,519 18
— 1819	1,169,569 79	281,995 97	2,242,334 62	25,423,036 12	3,214,599 49	8,000,234 53	..	287,275 13	274,512 16	48,244,405 51	24,035,519 18	24,035,519 18
— 1820	1,248,310 05	267,110 75	1,900,341 85	6,629,044 28	4,387,990 04	3,002,992 31	1,847,000 85	608,039 00	463,181 39	35,104,875 48	1,473,626 74	1,473,626 74
— 1821	1,248,310 05	267,110 75	1,900,341 85	6,629,044 28	4,387,990 04	3,002,992 31	1,847,000 85	608,039 00	463,181 39	35,104,875 48	1,473,626 74	1,473,626 74
— 1822	1,158,131 68	164,879 51	64,985 15	7,846,949 12	2,224,458 98	4,461,291 78	2,766,440 00	441,936 31	314,750 01	21,765,024 85	1,198,401 21	1,198,401 21
— 1823	1,058,911 65	299,118 56	67,063 78	6,539,016 41	2,224,458 98	3,100,924 43	1,642,290 94	306,066 46	477,005 44	19,090,572 69	1,681,592 24	1,681,592 24
— 1824	1,336,260 84	1,400,099 83	67,063 78	10,366,393 76	2,224,458 98	3,100,924 43	1,440,097 04	331,491 48	386,781 82	17,076,592 63	4,237,457 55	4,237,457 55
— 1825	1,336,260 84	1,400,099 83	67,063 78	10,366,393 76	2,224,458 98	3,100,924 43	1,440,097 04	331,491 48	386,781 82	17,076,592 63	4,237,457 55	4,237,457 55
— 1826	1,236,715 43	252,719 08	1,110,713 23	11,644,082 19	4,318,992 45	3,943,194 37	1,305,104 82	251,399 01	743,447 83	23,585,894 72	6,201,620 43	6,201,620 43
— 1827	1,236,715 43	252,719 08	1,110,713 23	11,644,082 19	4,318,992 45	3,943,194 37	1,305,104 82	251,399 01	743,447 83	23,585,894 72	6,201,620 43	6,201,620 43
— 1828	1,425,490 88	650,211 67	826,123 67	10,003,658 39	4,363,877 58	3,938,977 88	796,012 52	180,128 34	766,624 88	32,650,765 04	6,388,666 18	6,388,666 18
— 1829	1,425,490 88	650,211 67	826,123 67	10,003,658 39	4,363,877 58	3,938,977 88	796,012 52	180,128 34	766,624 88	32,650,765 04	6,388,666 18	6,388,666 18
— 1830	1,323,905 86	207,060 35	1,570,656 66	12,383,400 77	9,312,931 87	4,730,605 03	767,092 88	165,344 26	889,159 41	25,077,017 59	5,068,540 44	5,068,540 44
TOTAL	32,400,705 44	33,225,674 49	36,991,517 23	362,710,701 34	101,665,137 64	175,469,957 65	14,174,374 33	6,119,473 44	10,320,583 87	763,297,124 34	103,907,124 34	103,907,124 34

FINANCES.—TABLE III.

A STATEMENT OF THE EXPENDITURES OF THE UNITED STATES FOR THE YEAR 1829.

CIVIL, MISCELLANEOUS, AND FOREIGN INTERCOURSE.	Drs. Cts. Drs. Cts.		MILITARY ESTABLISHMENT— continued.	Drs. Cts. Drs. Cts.	
Legislature	467,447	59	Armament of fortifications	136,787	61
Executive departments	530,172	14	Arming and equipping of militia ..	219,654	37
Officers of the Mint	9,600	00	Repairs and contingencies of fortifications	7,496	30
Surveyors and their clerks	23,057	44	Fort Monroe	101,500	00
Commissioner of the public buildings	2,000	00	— Calhoun	100,000	00
Governments in territories of U. States	55,344	99	— Delaware	12,000	00
Judiciary	239,447	20	— Hamilton	100,000	00
	1,327,069	36	— Adams	97,277	06
Annuities and grants	1,800	00	— Jackson	16,000	00
Mint establishment	34,285	00	— Mobile Point	100,000	00
Extending the Mint establishment ..	61,066	67	— Macon	57,975	00
Unclaimed merchandise	716	59	— at Oak Island, North Carolina ..	66,534	12
Lighthouse establishment	289,149	07	Fortifications at—		
Surveys of public lands	61,289	08	— Charleston, South Carolina ..	31,673	00
Registers and receivers of land offices	1,125	00	— Savannah, Georgia	4,300	00
Preservation of the public archives in			— Pensacola, Florida	90,000	00
Florida	1,077	45	Repairs and preservation of Fort Lafayette	22,000	00
Land claims in Florida territory ..	3,549	74	Completion of battery at Bienvenue	6,447	80
— Ditto in Michigan territory ..	2,202	79	Erection of a tower at Bayou Dupre, Lafayette	16,677	41
— Ditto in St. Helena land district	800	00	Construction of a wharf at—		
Roads within the state of Ohio ..	3,577	93	— Fort Constitution, Portsmouth, New Hampshire ..	600	00
Roads & canals within state of Indiana	8,902	11	— Fort M'Henry, Baltimore, Md. ..	1,500	00
Encouragement of learning within the			— Fort Wolcott	31	21
state of Illinois	1,727	83	Barracks at—		
Repayment for lands erroneously sold			— Michilimackinac, Michigan ..	1,765	40
by the United States	92	50	— Fort Sullivan, Eastport, Maine ..	2,500	00
Marine Hospital establishment ..	63,562	28	— Trumbull, New London, Conn. ..	5,900	00
Appropriation for Navy Hospital fund	125,000	00	— Severn, Annapolis, Md. ..	1,000	00
Public buildings in Washington ..	74,114	67	— Winnebago, N. W. T. ..	9,000	00
Penitentiary for district of Columbia	14,500	00	— Crawford, Prairie du Chien, N. W. T. ..	10,000	00
Accommodation of the President's			Erection of a breakwater at the mouth		
household	14,000	00	of Delaware Bay	66,905	00
Consular receipts, under the act of			Building piers—		
April 14, 1792	156	84	— Mouth of Oswego River, New York	22,619	34
Bringing votes for President and Vice-			— Ditto Buffalo Creek, New York	9,205	00
President	2,766	50	— New Castle, Delaware	17,895	99
Payment of balances to officers of old			— Allen's Rock, Warren River ..	3,751	26
internal revenue	215	57	— La Plaisance Bay, Michigan ..	2,000	00
Ditto to collectors of new internal rev.	249	46	— &c. Merrimack River, Connecticut	32,100	00
Paym. of claimants for buildings destroyed	1,480	00	— &c. Stonington, Connecticut ..	19,358	14
Florida claims	1,938	74	— Harbour of Dunkirk, New York ..	9,812	75
Stock in the—			Extending piers at—		
— Louisville & Portland Canal Comp.	143,500	00	— Harbour of Edgartown, Massachus.	2,500	00
— Dismal Swamp Canal Company ..	50,000	00	— Ditto Black Rock, New York ..	30,000	00
— Chesapeake & Ohio Canal Company	125,000	00	Examining piers at Sandy Bay, Mass.	150	00
— Chesapeake & Delaware Canal Comp.	150,000	00	Repairing piers at—		
Building custom-houses & warehouses	9,131	93	— Port Penn & Marcus Hook, Pennsylv.	5,000	00
Revolutionary claims, per act of May			— Kennebec River, in Maine ..	5,000	00
16, 1828	288,446	24	Preservation of islands in Boston Har.	61,203	50
Miscellaneous expenses	51,435	57	— Completion of sea-wall, George's Isl., Boston Harbour	7,310	54
	1,566,679	66	— Deepening the harbour of—		
Diplomatic Department	122,452	14	— Sackett's Harbour, New York ..	1,187	00
Contingent expenses of foreign inter-			— Mobile, Alabama	2,550	00
course	15,515	16	Deepening the channel—		
Agency in relation to N. E. boundary	19,280	22	— Through the Passe au Heron, near		
Relief & protection of Amer. seamen	10,410	67	— Mobile Bay	2,250	00
Treaties with Mediterranean powers	11,938	88	— Between St. John's and St. Mary's		
Claims on Spain	18,527	40	— Harbour	10,000	00
Payment of claims under the 9th			Closing the breach made in the Penin-		
article of the treaty with Spain ..	598	00	sula at Presque Isle Bay, Pennsylv.	7,390	25
Awards under 1st art. of treaty of Ghent	9,033	38	Improving the navigation of—		
	207,765	85	— Ohio and Mississippi rivers ..	47,200	60
MILITARY ESTABLISHMENT.	3,101,514	87	— Ohio River	10,000	00
Pay of army & subsistence of officers	1,134,284	40	— Red River, Arkansas	5,750	00
Subsistence	299,408	63	— Mill River, Connecticut ..	3,941	00
Quartermaster's department	341,138	18	— Genesee River, New York ..	10,000	00
Forage	39,874	97	— Cape Fear River, North Carolina ..	6,750	00
Clothing or purchasing department ..	167,355	41	— Conneaut Creek, Ohio	6,590	00
Bounties and premiums	25,091	13	— Harbour of Cleveland, Ohio ..	9,000	00
Expenses of recruiting	13,987	84	— Ditto of Hyannis, Massachusetts	1,650	00
Medical or hospital department ..	23,362	14	Removing obstructions at—		
Purchase of woollens for 1829 & 1830	20,000	00	— Mouth of Grand River, Ohio ..	3,135	11
Contingencies	7,987	39	— Huron River, Ohio	5,935	00
Military Academy, West Point ..	27,925	11	— Ashtabula Creek, Ohio	6,000	00
Armories	361,354	44	— Cunningham Creek, Ohio ..	2,955	00
Armaments	167,125	18			
Arsenal at Augusta, Maine	18	40			
Ditto at Mount Vernon, Alabama ..	23,200	00			
Ordnance	95,551	88			

FINANCES.—TABLE III.—(continued).

MILITARY ESTABLISHMENT— continued.	Drs.	Cts.	Drs.	Cts.	MILITARY ESTABLISHMENT— continued.	Drs.	Cts.	Drs.	Cts.
Removing obstructions at—					Purchase of provisions for Quapaw				
Berwick branch of Piscataqua River					Indians	1,000	00		
New Hampshire	3,170	00			Effecting certain Indian treaties, per				
Black River, Ohio	5,500	00			act of 20th May, 1826	3,031	91		
Apalachicola River, Florida	1,500	00			Effecting a treaty with the Creek In-				
Kennebunk River, Maine	1,720	32			dians, per act of 22nd May, 1826 ..	8,599	39		
Ocracoke Inlet, North Carolina	22,000	00			Effecting certain Indian treaties,—				
Nantucket Harbour, Massachusetts ..	19,653	00			Per act of 24th May, 1828	7,920	44		
Big Sodus Bay, New York	12,000	00			Ditto 2nd March, 1829	125,906	49		
Survey of obstructions at—					Annuities to Indians	245,108	00		
Wabash River, Indiana	500	00				6,267,626	58		
Cocheco branch of Piscataqua River,					From which deduct the following re-				
New Hampshire	59	76			payments:—				
Penobscot River, &c. Maine	297	30			Road from Pensacola to St.				
North River, Massachusetts	178	94			Augustine	\$3,460	20		
Harbour of Bass River, Massachus.	149	93			Opening of Old King's Road,				
River Thames, Connecticut	150	00			Florida	1,550	00		
Harbour of Westbrook, Connec. ..	130	00			Materials for a fort on right				
Ditto of Norwalk, Connecticut ..	80	00			bank of the Mississippi	192	00		
Ditto of Stamford, Connecticut ..	100	00			Fort Rigoles & Chef Menteur ..	43	09		
Ditto of Sag Harbour, N. York ..	150	00			Survey of the—				
Flat Beach, alias Tucker's Island,					Harbour of Nantucket, Mas.	0	63		
New Jersey	100	00			Ditto Stonington, Conn.	6	37		
Deep Creek, Virginia	80	00			Swash in Pamlico Sound,				
Pasquotank River, North Carolina ..	80	00			North Carolina	17	30		
Pawnee at the mouth of the Missis.	500	00			Maps, plans, books, &c. for				
Water tract between Lake Ponchar-					the war department	341	05		
train and Mobile Bay	175	00			Running boundary-line be-				
Harbour of St. Augustine, Florida ..	300	00			tween Georgia & Florida	275	80		
Surveys and estimates of roads and					Purchase of Creek & Cherokee				
canals	30,044	01			reservations of lands in				
Completion of the Cumberland Road					Georgia	9,183	00		
to Zanesville	49,624	82			Expenses of treating with the				
Preservation and repairs of the Cum-					Choctaws and Chickasaws	1,253	79		
berland Road	100,000	00			Holding treaty with Cherokee				
Construction of the Cumberland Road					Indians for lands in N. Car.	1,073	07		
in Ohio, West of Zanesville	56,212	82				17,396	30		
Continuation of the Cumberland Road						6,250,230	28		
in Indiana	14,600	00							
Road from—									
Detroit to Fort Gratiot	8,150	00							
Ditto to Saganaw	8,188	90							
Ditto to Chicago	8,250	00							
Mattawancook to Mars Hill, Maine ..	29,224	89							
Little Rock to Cantonment Gibson,									
Arkansas	258	26							
Fort Smith to Fort Towson, Arkan.	360	10							
Coleraine to Tampa Bay, Florida ..	2,810	36							
Road between Pensacola, Blakely, and									
Mobile Point, Florida	3,000	00							
Repairing road between—									
Pensacola and Tallahassee, in Flor.	3,000	00							
St. Augustine & Tallahassee, Florida	3,000	00							
Payment of Georgia militia claims ..	712	40							
Balances due to certain States on ac-									
count of militia	2,216	85							
Relief of officers and others engaged									
in the Seminole campaign	356	00							
Relief of a company of rangers under									
Captain James Hogg	54	50							
Ransom of American captives in the									
late war	109	00							
Relief of sundry individuals	3,274	85							
Invalid and half-pay pensions	180,865	63							
Pensions to widows and orphans ..	4,236	46							
Revolutionary pensions	764,492	38							
Arrears	6,948	84							
Civilisation of Indians	4,549	87							
Pay of Indian agents	29,825	00							
Ditto .. sub-agents	15,100	00							
Presents to Indians	11,246	76							
Contingencies of Indian department ..	97,338	34							
Suppression of Indian aggression on									
the frontiers of Georgia and Florida	3,041	04							
Choctaw schools	7,599	41							
To aid the emigration of Creek Indians	16,910	45							
Pay of Illinois and other militia ..	856	55							
Expenses of an exploring delegation									
of Indians	6,869	50							
To extinguish the claims of Cherokee									
Indians to lands in Georgia	2,768	00							
Compensation to Indians in Ohio, for									
depreciations committed by white									
citizens	1,539	25							

FINANCES.—TABLE III.—(continued).

NAVAL ESTABLISHMENT— continued.	Drs. Cts. Drs. Cts.	NAVAL ESTABLISHMENT— continued.	Drs. Cts. Drs. Cts.
From which deduct the following re- payments:—		PUBLIC DEBT.	
Gradual increase of navy \$29,795 86		Interest on the funded debt..	2,542,843 28
Building ten sloops of war 19,592 24		Redemption of the—	
Repairing & building sloops		6 per cent. stock of 1814 (loan of	
of war 9,743 25		ten millions) ..	6,251,827 59
Navy hospital fund.. .. 20,823 99		Ditto of 1814 ..	537,895 77
Navy pension fund.. .. 15,462 77		Ditto of 1815 (loan of	
Privateer pension fund .. 62 06		\$18,450,800) ..	3,049,542 93
Contingent expenses—		Principal and interest of Treasury	
Prior to 1824 23 30		notes	1,264 27
For 1824 61 86		Reimbursement of Mississippi stock	450 00
For 1826 180 82		Paying certain parts of the domestic	
For 1828 1,398 81		debt	43 99
	97,144 98		12,388,867 78
	3,308,745 47	TOTAL	26,044,358 40

FINANCES.—TABLE IV.

SHOWING THE AMOUNT OF THE PUBLIC DEBT, AT SEVERAL PERIODS, FROM 1791 TO 1832,
RECKONED ON THE 1ST JANUARY IN EACH YEAR.

In 1791 \$75,169,974	{ There was some increase of the debt in each of these six years, except 1794, in which there was a reduction of it.	In 1817 \$115,807,805	{ Mr Monroe's administration. Rapid reduction of the debt since 1810; the receipts from the customs, &c. being large.
1796 81,642,272		1820 91,015,566	
1799 77,399,009	{ The debt was increased in consequence of the military preparations against France, before the year 1801, when Mr. Jefferson's administration commenced.	1821 89,987,427	{ The debt increased in consequence of the purchase of Florida, in 1821, for the sum of \$5,000,000; and a diminution in the receipts from the customs, &c. in the years 1820, 1821, &c. Mr. Monroe's administration ended in 1825.
1801 82,000,167		1822 93,546,676	
1803 74,731,922	{ The debt was increased by the purchase of Louisiana, in 1803, for the sum of \$15,000,000. Mr. Jefferson's administration ended March 3rd, 1809.	1823 90,375,877	{ Mr. Adams's administration commenced on the 4th of March, 1825, and ended on the 3rd of March, 1829.
1804 85,353,643		1824 90,269,777	
1809 56,732,379	{ The debt was at its lowest amount in 1812, in Mr. Madison's administration, and before the war.	1825 83,785,432	{ General Andrew Jackson's administration began on the 4th of March, 1829.
1810 58,156,532		1826 81,054,059	
1812 45,035,123	{ The debt greatly augmented by the war:—highest amount in 1816.	1827 73,987,357	
1813 55,907,452		1828 67,475,623	
1816 123,016,375		1829 68,362,135	
		1830 48,565,405	
		1831 39,082,461	
		1832 24,282,579	

FINANCES.—TABLE V.

A STATEMENT OF THE FUNDED DEBT AS IT EXISTED ON THE 1ST JANUARY 1831 AND 1832; ALSO THE DATES OF THE ACTS UNDER WHICH THE SEVERAL STOCKS WERE CONSTITUTED, AND THE PERIODS AT WHICH THEY ARE REDEEMABLE.

STOCKS.	Date of the Acts constituting the several Stocks.	WHEN REDEEMABLE.	AMOUNT, 1831.	AMOUNT, 1832.
Three per Cent. Stock (Revolutionary debt)	4 Aug. 1790	At the pleasure of Government ..	\$13,296,397 57	\$13,296,626 21
Five per Cent. Stock (Subscription to Bank U.S.)	10 Apr. 1816	Ditto ditto	4,000,000 00	..
Five per Cent. Stock	15 May, 1820	After the 1st day of Jan. 1832 ..	999,999 13	..
Five per Cent. Stock	3 Mar. 1821	After the 1st day of Jan. 1835 ..	4,735,296 30	4,735,296 30
Five per Cent. Stock (exchanged)	20 Apr. 1822	{ $\frac{1}{2}$ after the 31st day of Dec. 1830 $\frac{1}{2}$ after the 31st day of Dec. 1831 $\frac{1}{2}$ after the 31st day of Dec. 1832	56,704 77	56,704 77
Four and a Half per Cent. Stock	24 May, 1824	After the 1st day of Jan. 1832 ..	5,000,000 00	1,739,524 01
Four and a Half per Cent. Stock	26 May, 1824	After the 31st day of Dec. 1831 ..	5,000,000 00	..
Four and a Half per Cent. Stock (exch.)	26 May, 1824	{ $\frac{1}{2}$ after the 31st day of Dec. 1832 $\frac{1}{2}$ after the 31st day of Dec. 1833 $\frac{1}{2}$ after the 31st day of Dec. 1828	4,454,727 95	4,454,727 95
Four and a Half per Cent. Stock (exch.)	3 Mar. 1825	{ $\frac{1}{2}$ after the 31st day of Dec. 1829	1,589,396 16	..
			\$39,082,461 88	\$24,282,579 24

FINANCES.—TABLE VI.

SHOWING THE WHOLE QUANTITY OF LAND IN THOSE STATES AND TERRITORIES IN WHICH THE PUBLIC LAND IS SITUATED; THE QUANTITY OF PUBLIC LAND TO WHICH THE INDIAN TITLE HAD BEEN EXTINGUISHED, JUNE 30, 1828; AND THE QUANTITY TO WHICH IT HAD NOT BEEN EXTINGUISHED AT THE SAME DATE.

STATE OR TERRITORY.	Whole Quantity of Land in each State or Territory.	Quantity of Land belonging to the United States, to which the Indian Title is extinguished.	Quantity of Land belonging to the United States, to which the Indian Title is not extinguished.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Tennessee	26,432,000	3,000,000	..
Mississippi	31,074,234	11,514,517	16,885,760
Indiana	22,459,669	12,308,455	5,335,632
Ohio	24,810,246	4,984,348	409,501
Louisiana	31,463,040	25,364,197	..
Illinois	35,941,902	23,575,300	6,424,640
Michigan Territory (peninsular)	24,939,870	16,393,420	7,378,400
Arkansas .. (ditto)	28,899,520	26,770,941	..
Missouri	39,119,019	35,263,541	..
Florida Territory	35,286,760	29,728,300	4,032,640
Alabama	34,001,226	19,769,679	9,519,066
	334,627,486	205,672,698	49,985,639
Territory of Huron lying west of Lake Michigan } and east of the Mississippi River }	56,804,854	.. ..	56,804,834
Great Western Territory, extending from the Mis- sissippi River to the Pacific Ocean }	750,000,000	.. ..	750,000,000
	1,140,432,330		856,790,473
Add quantity to which the Indian title is extin- guished .. .. . }	.. ..	.. ..	205,672,698
TOTAL acres belonging to the United States ..	.. ..	.. ..	1,062,463,171

FINANCES.—TABLE VII.

SHOWING THE QUANTITY OF LAND SOLD IN EACH OF THE SEVERAL STATES AND TERRITORIES, FROM THE 1ST OF JULY, 1820, TO THE 31ST OF DECEMBER, 1829, A PERIOD OF NINE YEARS AND A HALF.

	<i>Acres.</i>	<i>hds.</i>		<i>Acres.</i>	<i>hds.</i>
Alabama	1,459,054	78	Illinois	667,200	44
Mississippi	544,523	82	Missouri	923,506	32
Louisiana	150,839	35	Florida Territory	336,567	50
Ohio	1,405,267	73	Michigan Territory	443,209	23
Indiana	2,169,149	70	Arkansas Territory	59,899	36
			TOTAL	8,167,218	23

FINANCES.—TABLE VIII.

SHOWING THE QUANTITY OF LAND SOLD IN EACH OF THE FOLLOWING YEARS.

	<i>Acres.</i>	<i>hds.</i>		<i>Acres.</i>	<i>hds.</i>
In half the year of 1820	303,404	09	In 1825	893,461	69
" 1821	781,213	32	" 1826	848,082	26
" 1822	801,226	18	" 1827	926,727	76
" 1823	653,319	52	" 1828	965,600	36
" 1824	749,323	04	" 1829	1,244,860	01
			TOTAL	8,167,218	23

CHAPTER V.

POPULATION.

WHERE the increase of the human family is looked upon as an evil, society must be poisoned at its very source, and some great change must be both needful and near. The United States are happily circumstanced in this respect, whatever disadvantages they may lie under in others; there, at least, the human infant is not welcomed with less satisfaction than though he were one of the progeny of the stall or the sty; but the rapid increase of the population is esteemed conducive alike to the wealth, the glory, and the happiness of the republic.

It is greatly to be regretted, that the different nations of the civilized world have not kept regular and authentic accounts of the progress of their population, as important moral and political truths might have been elucidated by comparison, if such tables had existed. It appears that the population of France does not double itself in less than 150 years, and that of Great Britain in about half that time; while the population of the United States doubles itself in less than thirty years. The congress early determined to ascertain, at regular intervals, the progress of population; and, according to its enactments, the first census was taken in the year 1790. The number of inhabitants was then nearly 4,000,000, of whom not quite 700,000 were slaves; in 1800, the population had increased to 5,300,000, of whom nearly 900,000 were slaves; in 1810, the numbers were 7,239,000, of whom 1,191,000 were slaves; in 1820, 9,638,000, of whom 1,538,000 were slaves; and, in 1830, the population amounted to 12,856,000, of whom rather more than 2,000,000 were slaves.^a The precise particulars, including the numbers in each state, will be found in Tables I. and II. annexed to this chapter. It will be perceived, that in the forty years during which the census has been taken, the increase of the population has been steady, though rapid; and that it is, at the close of the period, more than three times the number that it was at the commencement. The increase during the last ten years has been 33.4 per cent. which is quite equal to that of the preceding periods. The increase of the free population has uniformly been the most rapid, and that of the slaves the most retarded: the increase of the slaves will, hereafter, be further checked, as their importation has been some years prohibited. From 1800 to 1810, the ratio of the increase of the free population was lessened, and that of the slaves augmented: the former effect was, probably, owing to the small addition accruing from immigration;

^a In 1840 the population of the United States had risen to 17,002,666. of which number 2,487,113 were slaves

and the latter to the importation of negroes from 1800 to 1808, especially in 1806 and 1807, in anticipation of the prohibition of the inhuman traffic in slaves; the number of the slaves was also increased by the additions of Louisiana, where they constituted nearly the half of the population.

The rapidity of the increase of the population of the United States forms the principal fact on which the Malthusian system has been founded; and it has consequently been a subject of much controversy, whether its ratio is materially affected by immigration. There appears to be no decisive authority by which to determine the actual number of emigrants arriving annually in the United States. Dr. Seybert estimates their amount from 1790 to 1810 at 6,000 per annum. "In 1790," says Dr. Seybert, "the free population of the United States amounted to 3,223,629 persons, and in 1810 it was 6,048,539; the actual increase in the twenty years was 2,824,910, from which deduct 120,000, for the emigrants who arrived during that period, and allow for their increase at the extraordinary rate of 5 per cent. per annum, or 60,000 for the twenty years, making the aggregate from the emigrant stock 180,000, which, when deducted from the total actual increase abovementioned, will leave 2,644,910 persons for the augmentation, independent of any aid from abroad; or the duplication of the free inhabitants, without addition from the emigrants, would only require about four-fifths of a year more than it did when they were added."^a—Messrs. Godwin and Booth, opponents of Mr. Malthus, take another method of ascertaining the amount of immigration, and arrive at a very different result: "When enumerations are taken every ten years, it is obvious, exclusive of immigration, that, in any particular census, the persons living above ten years of age must have all existed in the census immediately preceding. In that of 1810, for instance, all above ten years formed part of the population for 1800, and are in reality the same, except inasmuch as they are diminished by death. Those under ten have all been born in the interval between the censuses. Comparing the American censuses on this principle, we shall find an astonishing extent of immigration. The white population of 1800 was 4,305,971. These in ten years would be diminished by a fourth. It is very improbable that more than 3,200,000 would have been alive in 1810; for, whatever proportion the births of that country may bear to the whole population, the proportion of deaths is certainly greater than in Europe. These 3,200,000, then, should have constituted the number of those above ten years of age in the census of 1810, had there been no importation from other countries. But the actual census above ten years of age was 3,845,389, giving a surplus of 645,389, which can be accounted for in no other way than by immigration.

To account for the difference between the censuses of 1800 and 1810, the immigration must have been, therefore, on the principles adopted by Godwin and Booth,

^a Statistical Annals, p. 30

at least 35,000 per annum, being nearly six times the number calculated by Dr. Seybert. This would appear to be utterly inconsistent with facts, and as far above the truth as Dr. Seybert's estimate is below it. The solution of this difficulty must be sought in the incorrect estimate of the ratio of deaths which has been adopted—that of one-fourth in ten years. The Edinburgh Review runs to the other extreme, and estimates the proportion of deaths at only one-eighth. "If we had American tables," says the writer, supposed to be Mr. Malthus himself, "formed like those of Dr. Price for Sweden, we should expect, that, on account of the peculiar structure of the American population, arising from the great excess of births above deaths, it would turn out that the proportion which a given population, without any fresh accession of births, would lose in ten years, instead of being rather more than one-seventh, would not be more than one-eighth; in which case, the amount of immigration annually would, by Mr. Booth's own rule, be only between seven and eight thousand, and the period of doubling would come near to the calculation of Dr. Seybert."^b Mr. Booth has occupied a considerable portion of his reply in proving this statement of the Edinburgh reviewer to be incorrect. The details of the controversy, owing to the absence of any direct and general authentic data, are by far too intricate and extended to introduce into our work; we shall therefore satisfy ourselves with stating, that, after investigating the subject, we are convinced that the truth lies, as in many other cases, between the two extremes, the result of Mr. Booth's estimate of the deaths being quite irreconcilable with the annual rate of immigration upon the most liberal scale; and that of the Edinburgh reviewer, making every allowance for the different condition and circumstances of the United States, being inconsistent with the ratio of deaths in other countries. From the result of these statements, in themselves contradictory, but constituting, in fact, checks upon each other, we think it may be concluded, with some tolerable degree of satisfaction, that the ratio of deaths is about one-sixth in every ten years,^c which, allowing a procreative increase from immigration at the rate of ten per cent. per annum instead of five per cent, as calculated by Dr. Seybert, would require the number of immigrants to have been, from 1800 to 1810, at least 10,000 annually.

A much more masterly performance than the labours either of Mr. Godwin or Mr. Booth has since appeared in opposition to the Malthusian system, from the pen of Mr. Sadler; indeed, however our opinions may differ from some of his deductions, the "Law of Population" is equally creditable to the soundness of the author's

^b Edinburgh Review, No. LXX. pp. 365, 366.

^c The assertion of Mr. Booth, that, "however the births in the United States may exceed those of Europe the deaths cannot be less numerous," is obviously unsatisfactory, as there are many circumstances in a newly-settled country which tend to diminish the ratio of deaths, although there are some of an opposite character.

principles as a moralist, and to his indefatigable industry as a political economist. "The theory," says Mr. Sadler, "that mankind would double, at the very slowest rate of increase, by procreation only, in five-and-twenty years, is founded upon the supposed increase of various colonies of America, and, finally, upon the growth of the entire population of the United States, which, it is asserted, have doubled, on the lowest calculation, in that term, and many much more rapidly, independently of foreign emigration. In refutation of this position, it has been shown, that none of the states instanced have ever so doubled in any part of their history; that the population of New England in particular, as well as that of the remaining colonies, at the period whence these doublings are dated, has been grossly understated, and that there are not, in reality, half the number of white inhabitants now in the United States that the theory demands, had not a single emigrant proceeded to that country; that, on the contrary, a vast and incessant afflux of emigrants has proceeded to America, first from England, but, very early afterwards, from the remaining parts of the British empire, and from every country of Europe; that, so far from this emigration having been immaterial in its effects, it has influenced, in every possible way, the manners, customs, habits, religion, and even language, of the various states; has shown its presence by every species of statistical evidence, excepting that of direct enumeration; that, more satisfactorily even than by such a mode, it has manifested its extent, by altering the natural proportion of the sexes, and the classifications of society throughout; has varied the established proportions of nature, as it respects the ages of the living in the censuses, and of the dead in the registers of mortality: and, finally, to epitomize the argument no further, it has been proved, from the very admissions of those who are anxious to demonstrate to the contrary, that emigration has been the main cause of that rapid increase in the population of America, on which alone they build their entire system." Nearly one-half of the two thick octavo volumes, of which Mr. Sadler's work is composed, is devoted to the consideration of the rate of increase of the population of the United States, and abounds with calculations which must be the result of a high degree of mental exertion; but we can obtain no specific result from his pages unless it be that the population of the United States is wholly (the Indians excepted) derived from emigration from Europe,^d a fact sufficiently manifest to persons at all acquainted with American history. We cannot perceive where Mr. Sadler draws any line: all the inhabitants of the United States are the descendants of emigrants undoubtedly; but the first point at issue is, stating the population of the United States at nine and a half millions in 1820, and at

^d "Mr. Malthus has, indeed, only commenced his calculation, relative to this annual emigration, with the year 1782; but I think it will be quite as difficult for him to persuade the historian that emigration first began at that period, as to convince the arithmetician, that even if calculated only thence, such an addition, increasing as he admits, can have been 'immaterial' whoever may attempt demonstrations to the contrary."—*Sadler Population*, vol. ii. p. 79.

twelve and a half in 1830, how many of the persons composing the difference between these two amounts were immigrants from foreign countries? The second point to ascertain would be, how many persons were living in 1830, born within the term of the last census, of parents one or both of whom were not natives of the United States? These would be two plain and simple statements, and would be the utmost that could be interesting to the national statistics of America; indeed, we doubt whether the latter is at all necessary, as the natives of a country can in no practical sense be considered immigrants. To what further extent the estimate of the influence of emigration must be carried to overthrow the system of Malthus we do not perceive, unless it be to the "pilgrim fathers," which would be equally subversive of all systems.

It is much to be regretted that authentic records of the immigrants arriving in the United States are not regularly kept and annually published by the government of the United States: such information of this character as exists we shall now lay before our readers. "The subject of emigration to this country," says the editor of the *North American Review*, "is not, however, one involved in such utter darkness, but that we can do something towards enabling our readers to form a tolerably correct estimate of the actual number of foreigners who arrive here; and the first document which we offer is nothing more nor less than an official transcript of all the lists of passengers who arrived in the United States from the 1st October, 1819, to September 30th, 1820, inclusive:—total arrived, 7,001; of these there are 1,959 females and 5,042 males." Now it is to be observed that this list embraces not only the foreigners coming here with the intention of remaining, but those who came here only on a visit, and our own citizens, who returned from visits to foreign countries. For these reasons we should deduct nearly all of the following classes, viz: ambassadors, clergymen, consuls, judges, lawyers, merchants, mariners, physicians, supercargoes, gentlemen, and ladies, and probably the planters, amounting in the whole to 1,579, which leaves but 5,422. But as our deductions are merely conjectural, we will estimate the number of emigrants for that year at 6,000. A second report for the year ending 30th September, 1821, was presented to congress at

* Taking the scale of emigration at 10,000, the calculation of Mr. Sadler, founded on the proportion of marriages which would arise from this relative proportion of males and females among the immigrants, (a calculation evidently exaggerated in favour of his own position, as he makes no adequate deduction from the number of males for travellers on pleasure or business,) very little exceeds our estimate of the addition which immigration occasions, (one fifth,) and, if connected in correspondence with the intimation just made, would probably accord with an accuracy somewhat surprising.—See "Law of Population," vol. i. pp. 50 and 58. It is true that we calculate an immigration of 20,000 per annum to be necessary to produce the same result; but that is on the supposition that if the unmarried immigrants marry American females, the procreative result was not wholly to be carried to the account of the immigrants, but to be divided; and still less that the results of the intermarriages of the children of the immigrants with native Americans should be placed also to the same account. Upon this principle, the ratio of increase of the population of England must be most materially diminished by deducting the procreative result of a certain immigration of Normans which took place some few hundred years since.

their last session; but, owing to some strange oversight, no order was passed for its being printed. The particulars, therefore, we are not acquainted with; but we have ascertained that the whole number of passengers was 10,722, of which 2,415 were from the United States, leaving 8,307 foreigners. Besides this, we have a newspaper before us, which professes to give an abstract of official returns ordered to be printed by the house of commons of Great Britain. From these it appears, that from the year 1812 to the year 1821, both years included, there emigrated to the United States—from Ireland, 30,653; from England, 33,608; from Scotland, 4,727: the whole amount of emigrations to the United States, 68,988. During the same period, there embarked for the British dominions in North America—from Ireland, 47,223; from England, 23,783; from Scotland, 19,971. Total of emigrations to the British dominions, 90,977. Total of the emigrations from the United Kingdom, 159,965. This gives us an annual average of 6,898 emigrants to the United States; and this we take to be not far from the true average; for, if the above period embraces the years of the war, when there were no emigrations to this country, it likewise embraces the extraordinary years 1817 and 1818, when the emigrations were double or treble what they ever were before, or have been since. We should add about one-ninth to the above amount for emigrants from other countries than Great Britain; for we take it that about nine-tenths of all the foreigners who come to this country come from the United Kingdom, and we shall have an average of little more than 7,500 emigrants per annum. And whilst we thus find the documents of the British government and of our own coinciding so nearly, it is impossible to think that both are very far from the truth. The number of passengers arriving at the principal ports of the United States during the year 1817, as obtained from the records of the several custom-houses, was 22,240. If we make a proper deduction for the number of Americans who must have been among these passengers, we shall conclude that the number of emigrants for that year was about 18,000.* The amount of emigration in common years, we are of opinion, varies from six to eight thousand. If any thing be wanting to confirm the above statement, we may find it in the last census. The number of foreigners not naturalized is there given, and amounts only to 53,655. No foreigner can be naturalized until he has resided within the United States at least five years; and consequently we have the whole number which could have arrived during the five years preceding the census, even if we suppose that all who arrived before that period were naturalized as soon as the law would permit. But we know that a great many delay obtaining naturalization for several years after they are entitled to it; and not a few are never naturalized at all.^f

It will be observed that the North American Review allows no addition to the

^f North American Review, vol. xv. p. 301—305.

number of immigrants from those who emigrated to Canada, although on other occasions American writers do not hesitate to affirm, that the greater part of those who leave Great Britain professedly for the Canadas ultimately settle in the United States; and we are inclined to think it very probable, that, whatever may be the case under the present arrangements, one-third of the persons emigrating to Canada between 1810 and 1820 settled in some of the states of the republic. This would raise the number who arrived in the United States from Great Britain alone to 12,000 per annum; and it is by no means impossible, that from other countries, or from sources not adequately ascertained, the total annual number of emigrants might have amounted to 20,000; but we cannot conceive it could much exceed that number. We are more confirm d in this opinion as it is sustained by the enumeration of the census of 1820, admitting the ratio of deaths to be one-sixth in ten years. The total *free* population of the United States in 1810 was 6,049,539: had there been no deaths or immigrations this number would, of course, have been the number of free persons above the age of ten years in 1820; deducting, however, according to our estimate, one-sixth for deaths in ten years, or 1,008,256, it will leave 5,041,283, as the number of persons who would be above ten years old in 1820. The census of 1820, however, gives a total of free persons above ten years of age of 5,380,644, which indicates an addition of 339,361 by immigration alone, as between 1810 and 1820 there was no accession of territory, that of Louisiana having accrued before 1810, and Florida after 1820. Estimating the increase of the immigrant population at ten per cent. per annum, it would require more than 20,000 persons to have arrived annually in the United States from 1810 to 1820, a period which, though it includes some years in which the number probably exceeded that estimate considerably, yet it includes also the period of the war, during which little or no immigration could take place. We apprehend, therefore, that when we admit the immigration of 20,000 persons annually, it reaches the utmost limit of truth, allowing for those who may pass through Canada or the West Indies. The increase of free persons from 1810 to 1820 was 1,686,000: allowing, therefore, 340,000 for immigrants and their descendants, it would diminish the ratio of increase, as nearly as possible, one-fifth, and would extend the period of duplication of the population by procreation alone, five years instead of four-fifths of a year, as stated by Dr. Seybert; or, in other words, the period in which the population of the United States would naturally double itself, is reduced by immigration from thirty to twenty-five years. Mr. Sadler appears to think that population will not duplicate from procreation only, in the most favourable circumstances, in less than from forty-five to fifty years; and that the "law of population" is, that its ratio of increase diminishes as its number to the square mile increases; but the ratio of increase in the United States from 1820 to 1830 being greater than that from 1810 to 1820, appears to be irreconcilable with that position.

We have entered into this discussion not from any peculiar interest we feel in the Malthusian controversy, but because we deemed a consideration of it as essentially connected with the subject of American population. We are quite willing to admit, that in favourable circumstances population may double itself in thirty, or possibly in twenty-five years; but the fact is not to us a matter of regret, but of congratulation: the world is yet a wide waste, in comparison with the population it is capable of sustaining; and it is the disgrace of humanity, not the order of Providence, that men should have been continually engaged in destroying themselves by vice, or each other by war, instead of bringing into cultivation the beautiful plains with which the world abounds. We cannot for one moment believe, that He who formed the earth, and hath "given it to the children of men," has established laws of human procreation incompatible with the dimensions and capabilities of the physical world; and entertaining no doubt that the earth is calculated to maintain a vastly greater population than has ever yet existed upon it, we can, with the utmost confidence, leave the ultimate result to the disposal of almighty power and infinite wisdom, without attempting to contravene the laws of nature by the impotent arm of human legislation.*

In the census for 1830, a new and much more satisfactory division of the free white persons was adopted, than in any previous census, each sex being distributed into quinquennial divisions under twenty years, and into decennial classes from twenty to one hundred; but a different method was followed with respect to the free coloured persons and the slaves, each sex of these two classes being formed into six divisions. The number of white persons, and also the number of coloured persons who were deaf and dumb, were also stated, and each divided, according to age, into three classes; and the numbers of persons blind is also exhibited. This census, however, though the returns are now completed, has not yet been published, and the total number of each class throughout the United States is not yet made known; we shall, therefore, present the details of the census of 1820, which supply many interesting particulars:

1.	Free white males under 10 years of age	1,345,220
2.	— of 10 and under 16	612,535
3.	— of 16 and under 26	776,150
4.	— of 26 and under 45	766,083
5.	— of 45 and upwards	495,065
6.	Free white females under 10 years	1,280,550
7.	— of 10 and under 16	605,248
8.	— of 16 and under 26	781,371

* Mr. A. H. Everett, in his "New Ideas on Population," has most satisfactorily confuted the doctrine of population pressing on subsistence otherwise than from imperfect social institutions;—and Mr. Sadler has most ably and unanswerably demonstrated, that the "preventive check" recommended by Mr. Malthus is 'unnatural, unlawful, and wicked.'

TOPOGRAPHY OF THE UNITED STATES.

9.	Free white females of 26 and under 45	736,600
10.	— of 45 and upwards	462,788
11.	males under 14 years	343,852
12.	— of 14 and under 26	203,088
13.	— of 26 and under 45	163,723
14.	— of 45 and upwards	77,365
15.	Slaves } females under 14 years	324,344
16.	— of 14 and under 26	202,436
17.	— of 26 and under 45	152,693
18.	— of 45 and upwards	70,627
19.	males under 14 years	47,659
20.	— of 14 and under 26 ..	24,048
21.	— of 26 and under 45 ..	23,450
22.	— of 45 and upwards ..	17,613
23.	Free coloured persons } females under 14 years	45,898
24.	— of 14 and under 26 ..	28,800
25.	— of 26 and under 45 ..	27,181
26.	— of 45 and upwards ..	18,881
27.	All other persons except Indians not taxed	4,631
Total		<u>9,637,999</u>
28.	Free white males between 16 and 18	182,205
29.	Foreigners not naturalized	53,687
30.	Number of persons engaged in agriculture	2,070,646
31.	— — in commerce	72,482
32.	— — in manufactures	349,506

The third table, annexed to this chapter, exhibits the number of persons, upwards of one hundred years old, distinguishing the whites, slaves, and free blacks. The whole number appears very large; but the great proportion of blacks, being 4 to 1, will strike many with surprise: it is, however, to be observed, that the ages of the blacks are not generally so accurately ascertained as those of the whites, and the proportion cannot therefore be fully relied on.

Additional particulars, respecting the population of each state, will be given in the section of the work which treats of the states separately; and, in closing the department of statistics, it may be proper to remind our readers, that much important statistical information respecting manufactures and other subjects, will be found in connexion with individual states, which, as no collective statement exists, could not with propriety be introduced in this portion of the work.

POPULATION.—TABLE I.
POPULATION OF THE UNITED STATES,
ACCORDING TO FIVE OFFICIAL ENUMERATIONS.

STATES & TERRITORIES.	1st Census. Pop. 1790.	2d Census. Pop. 1800.	3d Census. Pop. 1810.	4th Census. Pop. 1820.	5th Census. Pop. 1830.	Per Cent. 10 years.
Maine ..	96,540	151,719	228,705	298,335	399,462	33.9
New Hampsh.	141,885	183,858	214,460	244,161	269,533	10.4
Vermont ..	85,539	154,465	217,895	235,764	280,679	19.0
Massachusetts	378,787	422,845	472,040	523,267	610,014	16.6
Rhode Island	68,825	69,122	75,931	83,059	97,210	17.0
Connecticut ..	237,946	251,092	261,942	275,248	297,711	8.2
New York ..	340,120	586,050	950,049	1,372,812	1,915,508	39.4
New Jersey ..	184,139	211,149	245,562	277,575	320,779	15.6
Pennsylvania	434,373	602,545	810,091	1,049,313	1,347,672	28.4
Delaware ..	59,096	64,273	72,674	72,749	76,739	5.5
Maryland ..	319,728	345,824	380,540	407,350	446,913	9.7
Virginia ..	747,610	880,200	979,622	1,065,306	1,211,272	13.7
N. Carolina ..	393,951	478,103	555,500	638,829	738,470	15.6
S. Carolina ..	249,073	345,591	415,115	502,741	581,458	15.7
Georgia ..	82,548	162,660	252,433	340,989	516,507	51.5
Alabama ..	..	8,850	40,352	127,901	308,997	141.0
Mississippi ..	..	..	75,448	136,806	80,1	..
Louisiana ..	..	..	76,556	153,407	215,575	49.7
Tennessee ..	..	105,602	261,727	420,813	684,822	62.7
Kentucky ..	73,677	90,950	406,511	564,317	688,844	23.1
Ohio ..	..	45,365	230,760	581,434	937,679	61.2
Indiana ..	..	4,651	24,520	147,178	341,582	132.1
Illinois ..	..	215	12,282	55,211	157,575	185.4
Missouri ..	..	..	19,783	66,586	140,074	110.4
District of Co.	..	..	..	..	..	..
lumbia ..	..	15,093	24,023	33,039	80,858	20.1
Michigan Ter.	..	551	4,762	8,896	31,260	250.1
Arkansas Ter.	..	..	1,062	14,273	30,383	113.3
Florida Ter..	..	..	..	..	34,729	..
TOTAL ..	3,929,328	5,309,758	7,239,903	9,638,166	12,856,171	33.4

POPULATION.—TABLE II.
SLAVES IN THE UNITED STATES,
ACCORDING TO FIVE OFFICIAL ENUMERATIONS.

STATES & TERRITORIES.	Slaves. 1790.	Slaves. 1800.	Slaves. 1810.	Slaves. 1820.	Slaves. 1830.
Maine ..	..	..	..	..	..
New Hampsh.	158	8	..	..	..
Vermont ..	16	..	..	..	..
Massachusetts	..	..	..	..	..
Rhode Island	948	380	108	48	14
Connecticut ..	2,764	951	310	97	23
New York ..	21,324	20,613	15,017	10,088	46
New Jersey ..	11,423	12,422	10,851	7,557	2,946
Pennsylvania	3,737	1,706	795	211	385
Delaware ..	8,887	6,153	4,177	4,509	3,305
Maryland ..	103,036	108,554	111,502	107,398	102,873
Virginia ..	292,027	346,969	392,518	425,133	469,724
N. Carolina ..	100,572	133,296	166,824	205,017	246,162
S. Carolina ..	107,094	146,151	196,365	258,475	315,665
Georgia ..	29,264	59,699	105,218	149,656	217,470
Alabama ..	..	3,489	17,088	41,579	117,294
Mississippi ..	..	..	..	32,814	65,659
Louisiana ..	..	..	34,660	69,064	109,631
Tennessee ..	..	13,884	44,535	80,107	142,382
Kentucky ..	12,430	40,343	86,561	126,732	165,350
Ohio ..	3,417	..	..	..	..
Indiana ..	..	135	237	190	..
Illinois ..	..	..	168	917	746
Missouri ..	..	..	3,011	10,222	24,990
District of Co.	..	..	..	..	..
lumbia ..	..	..	5,395	6,377	6,650
Michigan Ter.	..	..	24	..	27
Arkansas Ter.	..	..	..	1,617	4,578
Florida Ter..	..	..	..	..	15,510
TOTAL ..	697,697	896,849	1,191,364	1,538,061	2,010,436

POPULATION.—TABLE III.
SHOWING THE NUMBER OF PERSONS, OF THE SEVERAL CLASSES, WHO WERE
ONE HUNDRED YEARS OLD AND UPWARDS, ACCORDING TO THE CENSUS
OF 1830.

STATES AND TERRITORIES.	White Males.	White Females.	SLAVES.		FREE BLACKS.		TOTAL.
			Males.	Females	Males.	Females	
Maine ..	1	3	..	..	1	..	5
New Hampshire	3	6	..	..	1	5	15
Vermont ..	3	5	..	..	2	4	14
Massachusetts	1	2	..	..	5	4	12
Rhode Island	..	..	..	..	3	3	6
Connecticut ..	4	3	..	..	2	11	20
New York ..	35	18	2	2	22	51	130
New Jersey ..	1	2	2	..	4	5	14
Pennsylvania	37	20	1	9	30	33	130
Delaware ..	..	1	3	3	13	18	38
Maryland ..	7	17	50	33	49	86	262
Virginia ..	28	26	122	143	143	22	479
North Carolina	23	26	92	114	22	27	304
South Carolina	14	19	98	84	19	6	240
Georgia ..	13	22	106	78	11	6	236
Alabama ..	15	10	30	25	1	6	87
Mississippi ..	..	2	23	21	1	..	47
Louisiana ..	9	1	37	39	11	23	125
Tennessee ..	39	27	59	34	7	6	172
Kentucky ..	27	11	45	49	17	17	166
Ohio ..	21	8	..	..	8	5	42
Indiana ..	10	2	..	..	2	5	19
Illinois ..	4	1	2	3	1	1	12
Missouri ..	2	2	2	2	2	2	51
District of Columbia	2	..	3	2	3	8	18
Florida Territory	1	..	..	..	1	..	..
Michigan Territory	1	..	..	..	..	..	..
Arkansas Territory	1	3	1	1	1	..	..
TOTAL ..	297	234	717	662	382	359	2,654

BOOK IV.

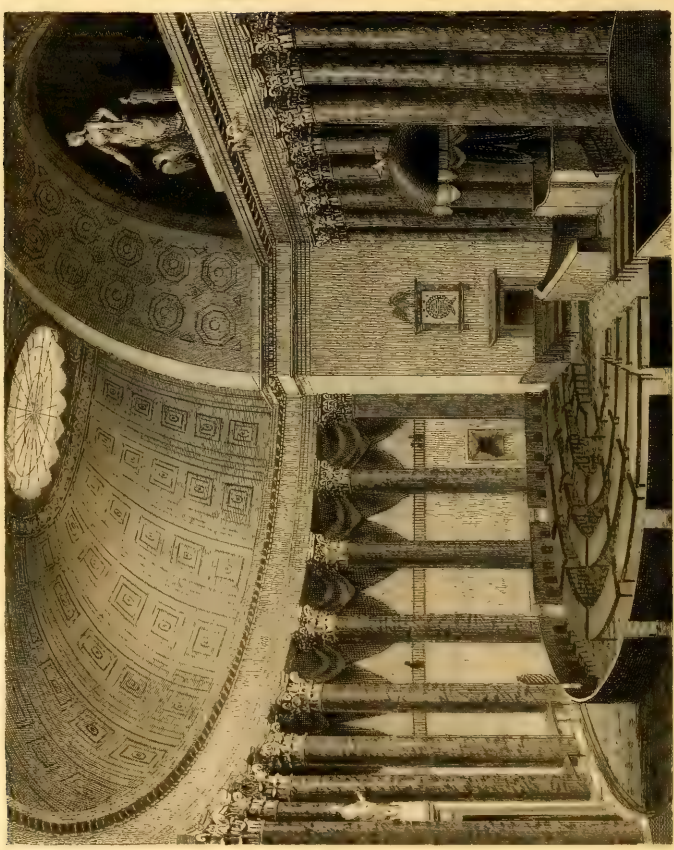
STATE OF SOCIETY.

CHAPTER I.

POLITICAL INSTITUTIONS, AND JURISPRUDENCE.

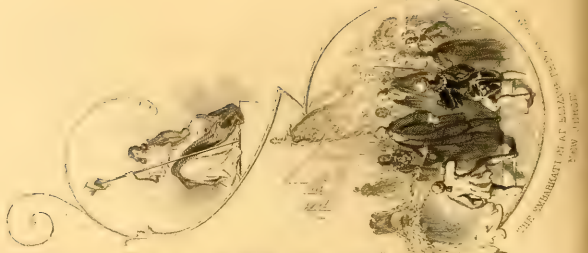
IN former portions of this work, it has been attempted to exhibit clearly the bold and conscientious origin, the subsequent noble struggles, and the present prosperous condition, of the people of the United States of North America. The spirit of liberty has been shown to have been their unwearied attendant in all their changes; and, during a steady progress through difficulties which would have appalled any but the stoutest hearts, they have earned well the blessings of freedom by duly estimating its cheering influence. A few pages only can be given to a notice, much too brief for the subject, of the constitutional and legal institutions of the country, which, under Providence, have made more than ten millions of men prosperous, by the rational freedom of their character.

The government in the United States is either that which is formed from the whole people; or those which are formed from the people of particular states. The general government, and those of the particular states, possess distinct constitutions; and each state, of course, possesses a constitution distinct from the others. No subject perhaps is more generally misunderstood, even in well-educated European society, than the nature of the general and state governments of the United States, and their relation to each other: the fact cannot be stated too strongly, that the general government is answerable only for the exercise of those powers which have been delegated to it by the people of the respective states, and that only to the extent and within the limits prescribed by the terms of the compact. The most correct view of the constitution of the United States appears to us to be that of a confederation of independent republics, who have thought proper, in addition to the usual character of confederations, to establish a general government, and to delegate to it such powers as render the several states, in their external policy, one nation; while, in the internal economy, the general government has only certain prescribed and limited powers, the several republics retaining to themselves all those powers, the delegation of which was not deemed necessary for the good of every state. It is, therefore, for instance, as unjust to reproach the northern and western



INTERIOR OF THE HOUSE OF REPRESENTATIVES, WASHINGTON

WASHINGTON



states, which repudiate the system of slavery, with being accessory to its existence in the southern states, as it would be to impute the superstitions of Spain to the influence of England; the power to abolish slavery being one, the delegation of which, from the separate states to the general government, it has not been possible to procure, either at the formation of the original confederation, at the adoption of the present constitution, or at any subsequent period. The old colonies, indeed, were integral parts of one nation, composing the British empire; but that connexion being lost in 1776, a new and far less absolute union arose from the influence of those common interests and ancient feelings which survived the separation of the states from Great Britain.

The three great principles which now characterize the constitution of the general government, are:—first, “the people of the United States”^a being the independent and equal source of all its powers;—secondly, the people at large, or the separate states, retaining all the powers which they have not conferred on the general government;—thirdly, the special powers thus conferred being set forth in instruments and articles, submitted to state conventions before being ordained, and sanctioned by the direct consent of the people. The constitutions of the separate states are derived even more directly from the people, as the declared source of all authority, limited powers only being intrusted either to the general or to the state governments. Whilst also the vast majority^b of the men, at the age of twenty-one, are consulted, in

^a *Title to the Constitution of 1787*, p. 311. Whilst adopting the principle of the unity of the inhabitants of all the states as one people, a principle which appears to be justified by the original instruments of the confederation of even an earlier date, it is proper to mention, that an important party have maintained with great force, that it was *assuming* a foundation of power necessarily subversive of public freedom, as well as of the just extent of the state sovereignties. See especially Mr. Henry's speech in 1787, in the *Debates of the Virginia Convention*, p. 36, and *Wirt's Life of Henry*, p. 265. *Pilkin*, vol. ii. p. 270.

^b Three classes of people must be named as the minority not consulted hitherto. *First*, the unfortunate coloured races, both Indian and Negro, are excluded from *citizenship*. In the United States, as in all the British possessions in Canada, in the West Indies, in Africa, in New Zealand, in Australia, and in India, justice is not yet insured to these races by the most ordinary guarantees. As to the United States, to say nothing of the scourge of slavery, even the *free* men of colour are not held in law to be absolutely equal to their white brethren in any part of the Union. By the high authority of the House of Representatives' papers for 7th of April, 1830, No. 348, p. 234, it is stated, that “the enlargement of their rights has extended to various limits in the different states. But in none does it efface all civil and political distinctions.” The same document affirms truly that “mere laws have less power, than manners have, over moral influences.” It might, however, have been added with advantage, and with equal truth, that by making the laws what humane legislators ought to make them, a just standard will be established to which manners will be the more readily conformed. American legislators indeed may do their country great honour, and England might enter into a generous rivalry with them, by pressing forward the work of legal retribution to these deeply injured races. But surely the recent laws of the state of Illinois (1825), against free people of colour settling, unless they give bonds not to become chargeable to the public, and against their marriage with whites; and those of Virginia (1830), against what are termed *meetings* of the same class to learn reading and writing; and those of Louisiana, against slaves learning to read or write; and those of Georgia (1829), that “no Indian, or descendant of Indians, residing with the Creeks, or Cherokees, shall be deemed a competent witness, or party to any suit to which a white man may be a party;”—are laws only worthy of a barbarous age and a more barbarous country; as well as opposed to the rule of “constitutionality.”—(*Jefferson's Memoirs*, vol. i. p. 16, 20, 22.)

The *second* classes excluded are (to take Massachusetts for an example) Jews, and all other persons not

order to settle the limits of those powers, such as are not intrusted to the general or to the state governments remain unimpaired for individual and popular enjoyment.

Independently of these deep and firm foundations of the North American commonwealth, it possesses guarantees of happiness and stability, not easy to be enumerated. Some of them are new, others are common to the Americans with many of their neighbours in both hemispheres; but the greater part are only the developement of rights and powers^c well understood in England, and the more worthy of our careful examination and entire respect, as being the rights for which British patriots have long zealously contended. What, however, Englishmen claim often by obscure inferences and antiquarian research, has been in America cleared of all doubt, and set forth in express declarations. But the vigour and healthy character of the branch are unquestionable proofs of the intrinsic virtue of the parent stem, which, in reverence to our forefathers and in justice to our children, we are bound to train up to its true destination.

The old guarantees are, amongst others, the general supremacy of law over all discretion;—the right to personal liberty;—freedom of speech, and the kindred right of free printing;—the right of calling for special amendments of the law when defective, and that of seeking general amendments in the forms of the constitution when not adapted to their end—the public good;—the right to know the details of whatever concerns the people, and of assembling together to discuss these details;—the power of resisting and correcting evil rulers, by indictment, by impeachment, and otherwise;—the right of having arms;—of sending representatives to consent to taxes and laws when needed;—and the direct responsibility of every man for his own acts, with the impossibility of a superior's instructions being admitted in bar of that responsibility. Such are the main objects common to both the English and the United States constitutions, however differently guarded in each.

The new guarantees of the public welfare peculiar to the United States are, such as a separation of the legislative, executive, and judicial authorities, more complete than in England; the degree of control possessed by the people, by frequent elec-

being Christians. Before 1821 all but *Protestants* were excluded. In this year Roman Catholics and other Christians were admitted; and a powerful party urged the propriety of removing all limitations of the same nature. It has been urged on this head, that any tests are *repugnant* to the constitution; and in North Carolina the legislature has so determined.—*Governor Worthington's Speech on the Maryland Test Act. Baltimore, 1824.*

The *third* classes are paupers, and persons under guardianship, together with convicts. Upon the propriety of exclusion of these classes no difference of opinion seems to exist.

^c It has not been attempted to enumerate all the rights which the American citizens claim; and it is believed that no full catalogue of them is anywhere to be found. The early patriots seem to have been apprehensive that a professed enumeration of all might be injurious in regard to such as, by insufficient care, should be omitted. In Virginia a minute list was prepared in 1788; and, like some of the state constitutions, contains^a most of what is essential to good government. See St. George Tucker's *Blackstone*, vol. i. p. 1; Appendix. p. 161, 1803; and Jackson's *Constitutions*, *passim*.

tions, either directly or indirectly, over all those authorities and public functionaries; rotation in office; the prohibition of orders of nobility; the substitution of a temporary president with narrow powers, for an hereditary king with limited authority; the abolition of the right of primogeniture; the absence generally^d of exclusive privileges; the absence of a national church and tithes; the establishment of the equality of all denominations of Christians; the admission of its being a public duty to educate the whole community; and the frequent reference of great affairs to the people in convention.

The Constitution of the United States, formed in the way already stated,^e is a comparatively brief instrument, and too important to be offered in an abridged form; it is therefore given entire:—

WE, the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquillity, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America:—

ARTICLE I.

SECTION I. All legislative powers herein granted shall be vested in a congress of the United States, which shall consist of a senate and house of representatives.

SECTION II. [1.] The house of representatives shall be composed of members chosen every second year by the people of the several states; and the electors in each state shall have the qualifications requisite for electors of the most numerous branch of the state legislature.

^d Franchises, and corporate rights of an exclusive character, to a certain extent, are far from being unknown in the United States. A remarkable instance upon this head occurred lately in Connecticut. Two collegiate bodies had long supplied the wants of the district, when at length a third seemed desirable to many of the people. The old colleges were prone to think their long undisturbed priority had endowed them with exclusive rights; and they actually resisted the reasonable claim of a younger establishment, not without temporary success. Calm and vigorous discussions, however, convinced the state legislature that the new body was entitled to receive capacities similar to those which the others would fain have called privileges; and the third college now flourishes in all respects like its fellows, which it doubtless improves by the stimulus of its example. Had the case occurred when the state was only an English colony, the claim would probably have been refused. By the sixth article of the Massachusetts Declaration of Rights it is settled, that no "corporation, or association of men, have any other title to obtain advantages, or particular and exclusive privileges distinct from those of the community, than what arises from the consideration of services rendered to the public."—*Jackson's Constitutions of the States of America*, p. 41. In the convention of Massachusetts, of 1820, it was urged that a clause for limiting the power of the legislature to incorporate only towns of 10,000 inhabitants, and upwards, was a breach of the foregoing article of the original Declaration of Rights. The limiting clause was, however, adopted, which, with other details too long for this place, prove that the principle of freedom, on the point of privilege, is not yet thoroughly acted upon in America. In the debate it was stated, in support of the clause alluded to, that the application of "a little clump of Indians" for city privileges, in addition to numerous applications of others for the like powers, caused the legislature of Connecticut to cease granting them, as being inconvenient. Such arguments led 223 members of the convention to make the law exclusive.—*Journal of Proceedings in the Convention to revise the Constitution of Massachusetts*, 1820, p. 99.

* Vol. i. p. 417.

[2.] No person shall be a representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state in which he shall be chosen.

[3.] Representatives and direct taxes shall be apportioned among the several states which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of representatives shall not exceed one for every thirty thousand; but each state shall have at least one representative; and until such enumeration shall be made, the state of New Hampshire shall be entitled to choose three; Massachusetts, eight; Rhode Island and Providence Plantations, one; Connecticut, five; New York, six; New Jersey, four; Pennsylvania, eight; Delaware, one; Maryland, six; Virginia, ten; North Carolina, five; South Carolina, five; and Georgia, three.

[4.] When vacancies happen in the representation from any state, the executive authority thereof shall issue writs of election to fill such vacancies.

[5.] The house of representatives shall choose their speaker and other officers, and shall have the sole power of impeachment.

SECTION III. [1.] The senate of the United States shall be composed of two senators from each state, chosen by the legislature thereof, for six years; and each senator shall have one vote.

[2.] Immediately after they shall be assembled, in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the senators of the first class shall be vacated at the expiration of the second year; of the second class, at the expiration of the fourth year; and of the third class, at the expiration of the sixth year; so that one third may be chosen every second year: and if vacancies happen by resignation, or otherwise, during the recess of the legislature of any state, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies

[3.] No person shall be a senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state for which he shall be chosen.

[4.] The vice-president of the United States shall be president of the senate, but shall have no vote, unless they be equally divided.

[5.] The senate shall choose their other officers, and also a president *pro tempore*, in the absence of the vice-president, or when he shall exercise the office of president of the United States.

[6.] The senate shall have the sole power to try all impeachments: when sitting for that purpose, they shall be on oath or affirmation. When the president of the United States is tried, the chief justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the members present.

[7.] Judgment, in cases of impeachment, shall not extend further than to removal from

office, and disqualification to hold and enjoy any office of honour, trust, or profit, under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment, and punishment, according to law.

SECTION IV. [1.] The times, places, and manner of holding elections for senators and representatives, shall be prescribed in each state by the legislature thereof; but the congress may at any time, by law, make or alter such regulations, except as to the places of choosing senators.

[2.] The congress shall assemble at least once in every year, and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

SECTION V. [1.] Each house shall be the judge of the elections, returns, and qualifications of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members, in such manner, and under such penalties, as each house may provide.

[2.] Each house may determine the rules of its proceedings, punish its members for disorderly behaviour, and, with the concurrence of two-thirds, expel a member.

[3.] Each house shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as may, in their judgment, require secrecy; and the yeas and nays of the members of either house on any question, shall, at the desire of one-fifth of those present, be entered on the journal.

[4.] Neither house, during the session of congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses shall be sitting.

SECTION VI. [1.] The senators and representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the treasury of the United States. They shall in all cases, except treason, felony, and breach of the peace, be privileged from arrest during their attendance at the session of their respective houses, and in going to and returning from the same; and for any speech or debate in either house, they shall not be questioned in any other place.

[2.] No senator or representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States, which shall have been created, or the emoluments whereof shall have been increased during such time; and no person holding any office under the United States, shall be a member of either house during his continuance in office.

SECTION VII. [1.] All bills for raising revenue shall originate in the house of representatives; but the senate may propose or concur with amendments as on other bills.

[2.] Every bill which shall have passed the house of representatives and the senate, shall, before it become a law, be presented to the president of the United States: if he approve, he shall sign it; but if not, he shall return it, with his objections, to that house in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If, after such reconsideration, two-thirds of that house shall agree to pass the bill, it shall be sent, together with the objections, to the other house, by which it shall likewise be reconsidered, and if approved by two-thirds of that house, it shall become a law.

But in all such cases, the votes of both houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the president within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law, in like manner as if he had signed it, unless the congress, by their adjournment, prevent its return, in which case it shall not be a law.

[3.] Every order, resolution, or vote, to which the concurrence of the senate and house of representatives may be necessary (except on a question of adjournment) shall be presented to the president of the United States; and before the same shall take effect, shall be approved by him; or, being disapproved by him, shall be repassed by two-thirds of the senate and house of representatives, according to the rules and limitations prescribed in the case of a bill.

SECTION VIII. The congress shall have power—

[1.] To lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defence and general welfare of the United States; but all duties, imposts, and excises, shall be uniform throughout the United States:

[2.] To borrow money on the credit of the United States:

[3.] To regulate commerce with foreign nations, and among the several states, and with the Indian tribes:

[4.] To establish an uniform rule of naturalization, and uniform laws on the subject of bankruptcies throughout the United States:

[5.] To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures:

[6.] To provide for the punishment of counterfeiting the securities and current coin of the United States:

[7.] To establish post-offices and post-roads:

[8.] To promote the progress of science and useful arts, by securing, for limited times, to authors and inventors the exclusive right to their respective writings and discoveries:

[9.] To constitute tribunals inferior to the supreme court:

[10.] To define and punish piracies and felonies committed on the high seas, and offences against the law of nations:

[11.] To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water:

[12.] To raise and support armies; but no appropriation of money to that use shall be for a longer term than two years:

[13.] To provide and maintain a navy:

[14.] To make rules for the government and regulation of the land and naval forces:

[15.] To provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions:

[16.] To provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the states respectively the appointment of the officers, and the authority of training the militia according to the discipline prescribed by congress.

[17.] To exercise exclusive legislation, in all cases whatsoever, over such district (not exceeding ten miles square) as may by cession of particular states, and the acceptance of congress, become the seat of the government of the United States; and to exercise like authority over all places purchased by the consent of the legislature of the state in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings :—And

[18.] To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this Constitution in the government of the United States, or in any department or officer thereof.

SECTION IX. [1.] The migration or importation of such persons as any of the states now existing shall think proper to admit, shall not be prohibited by the congress prior to the year one thousand eight hundred and eight; but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

[2.] The privilege of the writ of *habeas corpus* shall not be suspended, unless when, in cases of rebellion or invasion, the public safety may require it.

[3.] No bill of attainder or *ex post facto* law shall be passed.

[4.] No capitation or other direct tax shall be laid, unless in proportion to the *census* or enumeration herein-before directed to be taken.

[5.] No tax or duty shall be laid on articles exported from any state.

[6.] No preference shall be given by any regulation of commerce or revenue to the ports of one state over those of another: nor shall vessels bound to, or from, one state, be obliged to enter, clear, or pay duties in another.

[7.] No money shall be drawn from the treasury, but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

[8.] No title of nobility shall be granted by the United States; and no person holding any office of profit or trust under them, shall, without the consent of the congress, accept of any present, emolument, office, or title of any kind whatever, from any king, prince, or foreign state.

SECTION X. [1.] No state shall enter into any treaty, alliance, or confederation; grant letters of marque and reprisal; coin money; emit bills of credit; make any thing but gold and silver coin a tender in payment of debts; pass any bill of attainder, *ex post facto* law, or law impairing the obligation of contracts; or grant any title of nobility.

[2.] No state shall, without the consent of the congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts, laid by any state on imports or exports, shall be for the use of the treasury of the United States; and all such laws shall be subject to the revision and control of the congress.

[3.] No state shall, without the consent of the congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into any agreement or compact with another state, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

SECTION I. [1.] The executive power shall be vested in a president of the United States of America. He shall hold his office during the term of four years, and, together with the vice-president, chosen for the same term, be elected as follows :—

[2.] Each state shall appoint, in such manner as the legislature thereof may direct, a number of electors, equal to the whole number of senators and representatives to which the state may be entitled in the congress : but no senator or representative, or person holding an office of trust or profit under the United States, shall be appointed an elector.¹

[3.] The congress may determine the time of choosing the electors, and the day on which they shall give their votes ; which day shall be the same throughout the United States.

[4.] No person, except a natural-born citizen, or a citizen of the United States at the time of the adoption of this Constitution, shall be eligible to the office of president ; neither shall any person be eligible to that office who shall not have attained to the age of thirty-five years, and been fourteen years a resident within the United States.

[5.] In case of the removal of the president from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the vice-president ; and the congress may, by law, provide for the case of removal, death, resignation, or inability, both of the president and vice-president, declaring what officer shall then act as president, and such officer shall act accordingly, until the disability be removed, or a president shall be elected.

[6.] The president shall, at stated times, receive for his services a compensation, which shall neither be increased nor diminished during the period for which he shall have been elected ; and he shall not receive, within that period, any other emolument from the United States, or any of them.

[7.] Before he enter on the execution of his office, he shall take the following oath or affirmation :—“ I do solemnly swear (or affirm) that I will faithfully execute the office of president of the United States, and will, to the best of my ability, preserve, protect, and defend the constitution of the United States.”

SECTION II. [1.] The president shall be commander-in-chief of the army and navy of the United States, and of the militia of the several states when called into the actual service of the United States : he may require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the duties of their respective offices, and he shall have power to grant reprieves and pardons for offences against the United States, except in cases of impeachment.

[2.] He shall have power, by and with the advice and consent of the senate, to make treaties, provided two-thirds of the senators present concur ; and he shall nominate, and, by and with the advice and consent of the senate, shall appoint ambassadors, other public ministers, and consuls, judges of the supreme court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law : but the congress may, by law, vest the appointment of such inferior officers as

¹ A long clause regulating the proceedings at the election of president and vice-president was here introduced ; but as it is superseded by Article XII. of the Amendments, it is unnecessary to insert it.

they think proper, in the president alone, in the courts of law, or in the heads of departments.

[3.] The president shall have power to fill up all vacancies that may happen during the recess of the senate, by granting commissions, which shall expire at the end of their next session.

SECTION III. He shall, from time to time, give to the congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient; he may, on extraordinary occasions, convene both houses, or either of them, and in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper; he shall receive ambassadors and other public ministers; he shall take care that the laws be faithfully executed, and shall commission all the officers of the United States.

SECTION IV. The president, vice-president, and all civil officers of the United States, shall be removed from office on impeachment for, and conviction of, treason, bribery, or other high crimes and misdemeanours.

ARTICLE III.

SECTION I. The judicial power of the United States shall be vested in one supreme court, and in such inferior courts as the congress may, from time to time, ordain and establish. The judges, both of the supreme and inferior courts, shall hold their offices during good behaviour, and shall, at stated times, receive for their services a compensation, which shall not be diminished during their continuance in office.

SECTION II. [1.] The judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority;—to all cases affecting ambassadors, other public ministers, and consuls;—to all cases of admiralty and maritime jurisdiction;—to controversies to which the United States shall be a party;—to controversies between two or more states;—between a state and citizens of another state;—between citizens of different states;—between citizens of the same state claiming lands under grants of different states, and between a state or the citizens thereof, and foreign states, citizens, or subjects.

[2.] In all cases affecting ambassadors, other public ministers, and consuls, and those in which a state shall be party, the supreme court shall have original jurisdiction. In all the other cases before mentioned, the supreme court shall have appellate jurisdiction, both as to law and fact, with such exceptions, and under such regulations, as the congress shall make.

[3.] The trial of all crimes, except in cases of impeachment, shall be by jury; and such trial shall be held in the state where the said crimes shall have been committed; but when not committed within any state, the trial shall be at such place or places as the congress may by law have directed.

SECTION III. [1.] Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort.

[2.] No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

[3.] The congress shall have power to declare the punishment of treason, but no attainder of treason shall work corruption of blood, or forfeiture, except during the life of the person attainted.

ARTICLE IV.

SECTION I. Full faith and credit shall be given in each state to the public acts, records, and judicial proceedings of every other state. And the congress may, by general laws, prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

SECTION II. [1.] The citizens of each state shall be entitled to all privileges and immunities of citizens in the several states.

[2.] A person charged in any state with treason, felony, or other crime, who shall flee from justice, and be found in another state, shall, on demand of the executive authority of the state from which he fled, be delivered up, to be removed to the state having jurisdiction of the crime.

[3.] No person held to service or labour in one state, under the laws thereof, escaping into another, shall, in consequence of any law or regulation therein, be discharged from such service or labour, but shall be delivered up on claim of the party to whom such service or labour may be due.

SECTION III. [1.] New states may be admitted by the congress into this Union: but no new state shall be formed or erected within the jurisdiction of any other state; nor any state be formed by the junction of two or more states, or parts of states, without the consent of the legislatures of the states concerned, as well as of the congress.

[2.] The congress shall have power to dispose of and make needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this constitution shall be so construed as to prejudice any claims of the United States, or of any particular state.

SECTION IV. The United States shall guarantee to every state in this Union a republican form of government, and shall protect each of them against invasion; and, on application of the legislature, or of the executive (when the legislature cannot be convened), against domestic violence.

ARTICLE V.

The congress, whenever two-thirds of both houses shall deem it necessary, shall propose amendments to this Constitution, or, on the application of the legislature of two-thirds of the several states, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this Constitution, when ratified by the legislatures of three-fourths of the several states, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the congress; provided that no amendment, which may be made prior to the year one thousand eight hundred and eight, shall in any manner affect the first and fourth clauses in the ninth section of the first article; and that no state, without its consent, shall be deprived of its equal suffrage in the senate.

ARTICLE VI.

[1.] All debts contracted, and engagements entered into, before the adoption of this Constitution, shall be as valid against the United States, under this Constitution, as under the confederation.

[2.] This Constitution, and the laws of the United States, which shall be made in pursuance thereof, and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, any thing in the constitution or laws of any state to the contrary notwithstanding.

[3.] The senators and representatives before mentioned, and the members of the several state legislatures, and all executive and judicial officers, both of the United States and of the several states, shall be bound by oath or affirmation to support this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

The ratification of the conventions of nine states shall be sufficient for the establishment of this Constitution between the states so ratifying the same.

AMENDMENTS[§]

TO THE CONSTITUTION OF THE UNITED STATES, RATIFIED ACCORDING TO THE PROVISIONS OF THE FIFTH ARTICLE OF THE FOREGOING CONSTITUTION.

ARTICLE I. Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

ARTICLE II. A well-regulated militia being necessary to the security of a free state, the right of the people to keep and bear arms shall not be infringed.

ARTICLE III. No soldier shall, in time of peace, be quartered in any house, without the consent of the owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV. The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the person or things to be seized.

ARTICLE V. No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia, when in actual service in time of war or public danger; nor shall any person be subject, for the same offence, to be twice put in jeopardy of life or limb; nor shall be compelled, in any criminal case, to be a witness against himself, nor be deprived

[§] Congress, at their first session under the Constitution, held in the city of New York, in 1789, proposed to the legislatures of the several states twelve amendments, ten of which only were adopted. They are the first ten of the amendments in the text; and they were ratified by three-fourths, the constitutional number of the states, on the 15th of December, 1791. The eleventh amendment was proposed at the first session of the third congress, and was declared in a message from the president of the United States to both houses of congress, dated the 8th of January, 1798, to have been adopted by the constitutional number of states. The twelfth amendment, which was proposed at the first session of the eighth congress, was adopted by the constitutional number of states in the year 1804, according to a public notice by the secretary of state, dated the 25th of September, 1804.

of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI. In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favour, and to have the assistance of counsel for his defence.

ARTICLE VII. In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved; and no fact tried by a jury shall be otherwise re-examined in any court of the United States, than according to the rules of the common law.

ARTICLE VIII. Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX. The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

ARTICLE X. The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people.

ARTICLE XI. The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by citizens of another state, or by citizens or subjects of any foreign state.

ARTICLE XII. The electors shall meet in their respective states, and vote by ballot for president and vice-president, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as president; and, in distinct ballots, the person voted for as vice-president; and they shall make distinct lists of all persons voted for as president, and of all persons voted for as vice-president, and of the number of votes for each, which lists they shall sign and certify, and transmit, sealed, to the seat of the government of the United States, directed to the president of the senate. The president of the senate shall, in the presence of the senate and house of representatives, open all the certificates, and the votes shall then be counted;—the person having the greatest number of votes for president shall be the president, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as president, the house of representatives shall choose immediately, by ballot, the president. But in choosing the president, the votes shall be taken by states, the representation from each state having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the house of representatives shall not choose a president, whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the vice-president shall act as president, as in the case of the death or other constitutional disability of the president. The person having the greatest number of votes as vice-president shall be the vice-president, if such number be a majority of the whole number of electors appointed; and if no person have

a majority, then from the two highest numbers on the list the senate shall choose the vice-president; a quorum for the purpose shall consist of two-thirds of the whole number of senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of president shall be eligible to that of vice-president of the United States.^b

^b In the first volume of this History will be found copies of the other instruments, which may be considered the foundations of the present Constitution; in p. 322 is the Declaration of Rights and Grievances of 1774; in p. 353 is the Declaration of Independence of 1776; and in p. 380 is a summary of the Articles of Confederation of 1777; but the Constitution set forth in the text is now that of the Union. Those of the separate states may be understood generally by the examples of Virginia and Mississippi.

VIRGINIA.

The constitution of this state, which has hitherto, since its first adoption, been in operation, was formed in 1776; but on the first Monday in October, 1829, a convention met at Richmond "to consider, discuss, and propose a new constitution, or alterations and amendments to the existing constitution;" and on the 14th of January, 1830, the convention adopted an amended constitution, by a vote of fifty-five to forty. The amended constitution, on being submitted to the legal voters of the state, was ratified by a majority of 10,492 votes, as appears by the following statement:—

	For.	Against.
Votes in Trans-Alleghany district	2,123	11,289
Valley district	3,842	2,097
Middle district	12,417	1,086
Tide-water district	7,673	1,091
	<hr/> 26,055	<hr/> 15,563

By this constitution the legislative power is vested in a senate and a house of delegates, which are together styled "The General Assembly of Virginia." The house of delegates consists of 134 members, chosen annually;—thirty-one from the twenty-six counties west of the Alleghany Mountains; twenty-five from the fourteen counties between the Alleghany Mountains and the Blue Ridge; forty-two from the twenty-nine counties east of the Blue Ridge and above Tide-water; and thirty-six from the counties, cities, towns, and boroughs, lying upon Tide-water. The senate consists of thirty-two members, thirteen from the counties west of the Blue Ridge, and nineteen from the counties, cities, towns, and boroughs east thereof. The senators are elected for four years; and the seats of one-fourth of them are vacated every year. In all elections to any office or place of trust, honour, or profit, the votes are given openly, or *vivâ voce*, and not by ballot. A reapportionment for representation in both houses is to take place every ten years, commencing in 1841, until which time there is to be no change in the number of delegates and senators from the several divisions; and after 1841 the number of delegates is never to exceed 150; nor that of the senators thirty-six.

"The executive power is vested in a governor elected by the joint vote of the two houses of the general assembly. He holds his office three years, commencing on the 1st of January next succeeding his election, or on such other day as may be, from time to time, prescribed by law; and he is ineligible for the three years next after the expiration of his term of office. There is a council of state, consisting of three members, elected for three years by the joint vote of the two houses; the seat of one being vacated annually. The senior counsellor is lieutenant-governor. The judges of the supreme court of appeals, and of the superior courts, are elected by a joint vote of both houses of the general assembly, and hold their offices during good behaviour; or until removed by a concurrent vote of both houses; but two-thirds of the members present must concur in such vote, and the cause of removal be entered on the journals of each house.

"The right of suffrage is extended to every white male citizen of the Commonwealth resident therein, aged twenty-one years and upwards, who is qualified to exercise the right of suffrage according to the former constitution and laws;—or who owns a freehold of the value of twenty-five dollars;—or who has a joint interest to the amount of twenty-five dollars in a freehold;—or who has a life estate in, or reversionary title to, land of the value of fifty dollars, having been so possessed for six months; or who shall own and be in the actual occupation of a leasehold estate, having the title recorded two months before he shall offer to vote, of a term

The originators of the Constitution are the people, by direct votes given upon resolutions prepared by their delegates in convention; a term with which the reader of this

originally not less than five years, and of the annual value or rent of 200 dollars; or who, for twelve months before offering to vote, has been a housekeeper and head of a family, and shall have been assessed with a part of the revenue of the Commonwealth within the preceding year, and actually paid the same.

"Executive Government.—Governor, salary 3,333 $\frac{1}{3}$ dollars per annum; lieutenant-governor and president of the council, and seven counsellors, 8,000 dollars; clerk of the council and keeper of the public seal, 1,320 dollars; assistant clerk of the council, 1,000 dollars; attorney-general, 1,000 dollars; treasurer of state, 2,000 dollars; auditor, 2,000 dollars; second auditor, 1,800 dollars; register of the land-office, 1,500 dollars; keeper of the penitentiary, 2,000 dollars; penitentiary store-keeper, 1,500 dollars; adjutant-general, 500 dollars.

"The number of members of the existing senate is twenty-four; and of the house of delegates 214, two from each of the 105 counties, and one from each of the two cities and two boroughs. The senators and delegates receive four dollars a day, and twenty cents a mile for travel; the speaker of each house, eight dollars a day.

"Judiciary.—The offices of all the following judges of the supreme court of appeals, of the general court, and of the superior courts of chancery, will expire at the termination of the session of the first legislature under the new constitution. Supreme court of appeals,—five judges, 2,500 dollars each. Superior courts of chancery,—four judges, 1,667 dollars each. Fifteen judges of the general court, who are also judges of the superior courts of law held in each county: these judges receive each a salary of 1,500 dollars, and three dollars for every twenty miles travel on the circuit."

MISSISSIPPI.

The constitution of this state was formed at the town of Washington, in August, 1817. "The legislative power is vested in a senate and a house of representatives, which are together styled, 'The General Assembly of the State of Mississippi.' The representatives are elected annually on the first Monday in August, in the ratio of one to every 3,000 white inhabitants. Each county, however, is entitled to one; and the present whole number is thirty-three. According to the constitution, when the number of white inhabitants exceeds 80,000, the number of representatives cannot be less than thirty-six, nor more than one hundred. The members of the senate are elected for three years, one third being chosen annually. Their number cannot be less than one fourth, nor more than one third of the whole number of representatives.

"The executive power is vested in a governor, who is elected by the people for two years, on the first Monday in August. At every election of a governor, a lieutenant-governor is also chosen, who is president of the senate, and on whom the executive duties devolve in case of the death, resignation, or absence, of the governor.

"The general assembly meets at Jackson annually, on the first Monday in November.

"The right of suffrage is granted to every free white male citizen of the United States, of the age of twenty-one years or upwards, who has resided within this state one year next preceding an election, and the last six months within the county, city, or town, in which he offers to vote, and is enrolled in the militia thereof, unless exempted by law from military service; or, having the aforesaid qualifications of citizenship and residence, has paid a state or county tax.

"The judicial power is vested in a supreme court, and such superior and inferior courts of law and equity as the legislature may from time to time establish. The judges of the several courts are elected by the general assembly, and hold their offices during good behaviour, till the age of sixty-five years.

"Executive Government. — Governor's salary, 2,500 dollars; lieutenant-governor's pay, six dollars a day during the session of the legislature; secretary of state's salary, 1,200 dollars; state treasurer, 1,000 dollars; auditor of public accounts, 1,000 dollars; attorney-general, 1,000 dollars.

"Judiciary.—Court of chancery: chancellor's salary, 2,000 dollars. Supreme court: chief justice, and four associate justices, 2,000 dollars each. Circuit courts. — The state is divided into five districts, in which the judges of the supreme court severally hold circuit courts. These courts have original jurisdiction in all cases where the sum in dispute exceeds fifty dollars; and appellate jurisdiction from the courts of the justices of the peace, when the sum exceeds twenty dollars. They are also invested with criminal jurisdiction, except in the

history is familiar; but of which the precise import upon the present occasion deserves further remark. Conventions, then, in this sense, are the supreme and primary assemblies of the people in the several states, which have for their rule only the public will, and for their objects justice and the public good. Like the merely voluntary meetings of the people—the *conventus publicos propria autoritate* of England of the twelfth century—they originate in the old common law; but they are

county of Adams, which has a court exclusively of criminal jurisdiction: judge's salary, 800 dollars. Probate and county courts.—There are, in every county, a probate court and a county court, the judges of which have no salary, but are paid by fees and by an allowance of three dollars a day. The county court is composed of three judges, of which the probate judge is the presiding justice. This court has jurisdiction over all offences committed by slaves; and for such trials it is invested with the powers which usually belong to courts of oyer and terminer. It has appellate jurisdiction from the courts of the justices of the peace when the sum involved does not exceed twenty dollars."

DEPENDANT TERRITORIES.

With respect to the vast territories belonging to the United States,—territories not formed into states, and which are not yet distinct societies, known to the Constitution as separate states,—congress has assumed to exercise supreme sovereignty over them until the means of internal organization as states exists there. In the Arkansas territory, for example, the governor and judges are appointed by the president and senate, but they are removable at the pleasure of the president; and the judges, subject to such removal, hold office for four, and the governor for three years. A legislative body, composed of nine counsellors appointed by the president and senate of the United States to continue in office for five years, and of a house of representatives to be chosen by the inhabitants every two years, was provided by congress in 1820. The superior court of justice has exclusive cognizance of all capital offences, and trial by jury is secured, together with many of the other great fundamental principles of civil liberty. The local legislatures of these territories are prohibited from interfering with the primary disposal of the soil by the United States, or from taxing lands belonging to the United States, or the lands of absentees higher than those of residents, or from interrupting the navigable waters flowing into the Mississippi and Missouri rivers. It is held that congress has supreme power in the government of these territories, depending on the exercise of its sound discretion; and if the government of the United States should carry into execution the project of colonizing the great valley of the Oregon to the west of the Rocky Mountains, the civil and political destiny of this country will afford a subject of grave consideration.—*Chancellor Kent's Commentaries.*

The adoption of foreign states, upon equal and constitutional terms, into the old Union, is an interesting and novel illustration of the success of the American polity, which was applied with great advantage upon the acquisition of Louisiana. When that country was purchased, a great problem presented itself, which it was necessary for the government and the people of the United States, and the inhabitants of Louisiana, to meet. Although France sold the country, it is plain that, on American principles, the United States could acquire no rights, under the purchase, except against France and other powers admitting the right of a mother-country to transfer the jurisdiction of a colony. It was the opinion of Mr. Jefferson and his cabinet, that it was necessary for the people of Louisiana to do some act expressive of their willingness to join the American people: this was, however, superseded by the obvious good-will and predisposition of the population; and the momentous result of transferring all Louisiana, an empire in itself, from one jurisdiction to another, was unattended by the slightest violence, and has been succeeded by daily increasing satisfaction.

Had the comprehensive character of our work permitted it, we should have presented a sketch of the constitution of each state, and have exhibited the points in which they differ. Any of our readers who may wish to ascertain minutely the constitutions of the other states can refer to the tables in the *Encyclopædia Americana*, vol. iii. art. CONSTITUTIONS, or to the Companion to the British Almanack for 1832.

much more regular in form, although not more legal or important, than voluntary meetings of the people for less momentous purposes. When experience suggests that the constitution wants amendment, the subject is referred to conventions. The legislature (we speak of Massachusetts, in 1820, by way of example) pass a law, that inhabitants qualified to vote for the senators and representatives shall assemble in regular town meetings on a certain day, and give their votes by ballot on this question—"Is it expedient that delegates should be chosen to meet in convention for the purpose of revising or altering the constitution?" And if the majority of votes is in favour of choosing delegates, the inhabitants entitled to vote for representatives to the legislature shall elect delegates to take into consideration the propriety of making any and what amendments in the constitution; and such amendments shall be submitted to the people for their adoption, in such manner as the convention direct; and if ratified by the people, the constitution shall be deemed to be amended accordingly; and if not so ratified, the present constitution shall remain. (Act of the Commonwealth of Massachusetts, June 16, 1820.) Under this act, delegates met on the 15th of November in the same year, and resolved to abolish the old property qualification of electors of representatives;—to extend to militia soldiers under twenty-one years of age the right of voting for their ensigns, lieutenants, and captains;—to render more complete the separation of the judicial, executive and legislative authorities;—and to make other important changes. The proposed amendments were then referred to the people, who discussed them over again in their respective townships. Of the fourteen articles thus presented to their consideration, five were rejected. The debates of the convention were published, and distributed from day to day with great care throughout the state; and the whole business occupied about six months.¹

The earliest convention of which we read in the history of North America was formed directly upon the model of that of England in 1689. When the intelligence of the Revolution reached Boston, the people rose in mass, and imprisoned an unpopular governor. A small body of the principal inhabitants took upon themselves the government, under the title of "A Council for the Safety of the People and Conservation of the Peace;" and, in imitation of the convention called by the Prince of Orange, recommended to the several towns in the colony to meet and depute persons to form an assembly. Of this event, the governor of Connecticut says, in a contemporary letter, "The true grounds of the procedure of the colony in assuming the government was, *salus populi est suprema lex*." The king soon signified the royal approbation of what had been done, recognizing, in his letters to the council, the convention of the representation of the people of the colony. In this case, at the privy council, Sir John Somers, then the counsel for the people upon a petition, said,

¹ Debates and Proceedings in the Massachusetts Convention of 1820. 8vo. Boston, 1821.

"The country, oppressed by an arbitrary government, did there as we did here—rose as one man." One of the council remarked in this case, "I perceive the revolution was there as it was here—by the unanimous agreement of the people."^k

The constituency who choose the delegates for a convention is almost always the same constituency who choose the members of the state legislature; but it seems to be open to discretion to make this occasional constituency even more extensive. A great peculiarity, however, of the character of conventions is, that the delegates may be individuals from any class, including the ministers of religion, the governor, and other public functionaries, and the judges. In this point the reader will be struck with the resemblance it bears to the English county meetings, where peers, and commoners, and clergy, and all other men, assemble to deliberate on any public concerns. Both institutions, indeed, are traceable to a common Saxon stock. The experience of the Americans, however, is fast giving a new and fixed character to these important organs of the popular will. Frequent resort to the true source of national power has rendered that resort regular and easy; and by bringing the real sovereign, the people, into view and activity without confusion, promises to advance the public interests on a scale hitherto unknown, and scarcely anticipated by the most sanguine lovers of good government.

The constitution being so settled, the general government cannot exercise any powers not given either expressly, or by the implication^l necessary to the

^k Hutchinson's History of Massachusetts Bay, vol. i. pp. 373—394.

^l The due limits of constructive powers have been the occasion of anxious discussion. It has been strongly contended, that no implied powers were given to the federal government; for which position, the following solemn declarations by members of the convention of 1787, are relied upon.—"In the convention of Massachusetts, at which were present the two members from that state who signed the constitution, the first amendment proposed, in order to remove the fears of many, and more effectually guard against an undue administration of the federal government, is in these terms:—That it be explicitly declared, that all powers not expressly delegated by the aforesaid constitution are reserved to the several states, to be by them exercised." (*Debates of the Convention of Massachusetts, Boston, 1788, p. 211.*) In the legislature of South Carolina, to which the constitution was sent, in order to be referred to a convention of the people, one of her delegates in the general convention, in explaining the views of the convention and the objects of the constitution, uses these expressions:—"The distinction often taken between the nature of a federal and state government appeared to be conclusive; that in the former, no powers could be executed or assumed but such as were expressly delegated." (*Debates in the House of Representatives of South Carolina, Charleston, 1788, p. 7.*) General Pinckney, also a member of the general convention, thus expresses himself:—"It is admitted on all hands, that the general government has no powers but those which are expressly granted by the constitution; and that all rights not expressed, were reserved by the several states." (*Ibid. p. 25.*) And again, when replying to some one who had remarked that the liberty of the press had not been secured, he adds,—"The general government has no powers but what are expressly granted to it; it therefore has no power to take away the liberty of the press: that invaluable blessing is secured by all our state constitutions; and to have mentioned it in our general constitution, would, perhaps, furnish an argument hereafter, that the general government had a right to exercise powers not expressly delegated to it. For the same reason, we had no bill of rights inserted in our constitution; for as we might perhaps have omitted the enumeration of some of our rights, it might hereafter be said, we had delegated to the general government a power to take away such of our rights as we had

execution of the express powers. The powers vested in the state governments by their respective constitutions, or remaining with the people of the several states, prior to the establishment of the United States, continue unaltered, except so far as they are granted to the United States. The true construction of the particular declarations in the constitution, and the extent of the authority still remaining to the several states, are to be ascertained by the practice of the respective governments, where there is no collision. In all other cases, where the question is of a judicial nature, doubts are determined by the supreme court of the United States. The people, as we have seen, have declared the constitution to be the supreme law; and every act of congress, every act of the state legislatures, and every part of every state constitution, which is repugnant to the constitution of the United States, is void. The determination of the supreme court must be final, because the constitution gives to that tribunal the power to decide, and gives no appeal from its decisions. But it is the familiar practice of the people to discuss those decisions with the most unlimited freedom; and the judges who pronounce them are subject to impeachment at the bar of congress for malversation in their posts.

The date of the constitution, and of American law generally, as contradistinguished from the old colonial constitutions and laws, is perhaps subject to some doubts. It has been shewn^m how gradually the national independence grew out of resistance to particular measures in 1774, extending itself to the abrogation of British authority and British courts of justice in 1775, until, in 1776, regular war broke out; and independence was first resolved upon in April, and then declared on the celebrated 4th of July of the last mentioned year. These various circumstances seem to render the point difficult to be determined when British law ceased to operate in the

not enumerated; but by delegating express powers, we certainly reserve to ourselves every power and right not mentioned in the constitution." (*Ibid.* p. 44.)—*Southern Review, on the Constitution of the United States, for May, 1828.*

Upon this precise point it was prophetically said by the able and eloquent Virginian, Patrick Henry, against granting powers by implication, "If they (the federal government) can use implication for us, they can also use implication against us. We are giving power, they are getting power; judge then on which side the implication will be used. When we once put it in their power to assume constructive power, danger will follow. Implication is dangerous, because it is unbounded; if it be admitted at all, and no limits be preserved, it admits of the utmost extension. They say that every thing not given is retained; the reverse of the proposition is true by implication."—*Ibid.* p. 315.

And it is well said by Mr. Webster, in justification of limiting the power of legislation, that "The people have most wisely chosen to take the risk of occasional inconveniences from the want of power, in order that there might be a settled limit to its exercise, and a permanent security against its abuse. They have imposed prohibitions and restraints; and they have not rendered these altogether vain by conferring the power of dispensation. No legislature in this country is able, and may the time never come when it shall be able, to apply to itself the memorable expression of a Roman pontiff: *Licet hoc, de jure non possumus, volumus tamen de plenitudine potestatis.*"—*Speeches and Forensic Arguments, by Daniel Webster, Boston, 1830, p. 136.*

^m Vol. i. pp. 320—322, 349, 353.

States. For New York, the date is said to be the 19th of April, 1775; but, generally, the 4th of July, 1776, upon which day the declaration of independence was signed, may be termed the earliest legal origin of American law. There was then also adopted and continued much of the old colonial law, or that which had grown up from what had accompanied the first emigrants, or had afterwards been adopted from England, or enacted at home, and by the colonial legislatures. Many difficulties attended the framing of the constitution: and it was not until November, 1777, that the congress could so far reconcile the discordant interests and prejudices of thirteen distinct communities as to fix upon the articles of confederation; nor was it until March, 1781, that all the several states accepted those articles which had been successively submitted to them for approval.

The powers of the federal government thus created were found too dependent upon the acquiescence of the separate states; and, in 1786, the old congress yielded to a call from certain delegates of a large majority of the states, to recommend the people to form a general convention of delegates from all the states to "revise, amend, and alter," the articles of confederation. This recommendation was made accordingly; and such general convention (excepting Rhode Island, which did not send delegates,) was assembled at Philadelphia, in May, 1787. After several months' deliberation, the present constitution, except the last articles, was agreed to. It was directed to be submitted to delegates, to be chosen by the people at large in each state, for their assent; the grand question turning upon the extent of the powers with which the several governments should be invested. Nearly a year elapsed before nine states had adopted this constitution; it then received a political existence; but it did not obtain the unanimous ratification of all the members of the original confederacy until June, 1790.^a The intervening discussions were, however, unattended by the loss of a single life; nor were the doubts of the objecting parties of a nature to lead to any differences more serious than those of opinion, or than the somewhat bitter party feelings, now understood to be daily softening, or seeking scope in new channels. But if the particular parties into which political society was divided during the last forty years have lost much of their noxious character, other difficulties respecting the constitution, not essentially different from the old ones, have occurred; and they are difficulties of a kind to require the exercise of all the wisdom of this people, in order that they may find a good issue. In the construction, too, of the constitution, great diversities of opinion have arisen, traceable, perhaps, to the same source of proper jealousy of the encroachments of the central government, as much as to the intrinsic difficulty of framing important documents clearly. Of these diversities of opinion, an able writer in the United States has

^a Vol. i., pp. 379, 380, 406, 418—421.

lately said, that they "threaten to become intermingled with sectional feelings and sectional interests, and if not terminated by some new compromise in the spirit of our ancient friendship, they may endanger the peace and permanence of the Union."° These questions will be noticed briefly as we proceed.

The legislative powers are vested in congress, and in the legislatures of the separate states, according to principles settled by the constitution. The limits of these authorities have given rise to various questions, the nature of which may be estimated by the points mentioned in the notes below.†

° Southern Review, May, 1828, p. 274.

† The power to regulate commerce, Con. Act i., s. 8. chap. iii. is vested in congress, exclusively of each of the states.—Gibbons v. Ogden, 9 Wheaton, 186; &c. Under this power, congress may lay an embargo.—2 Hall's Law Journal, 255; Acts of Dec. 22, 1807.

Congress may provide for the punishment of foreign pirates.—3 Wheaton, 630.

Const. Art. I. s. 8. chap. 18. — "Necessary." The word "necessary" in this article means needful, requisite, essential, conducive to, and gives to congress the choice of the means best calculated to exercise the powers they possess. (4 Wheaton, 413; 2 Cranch, 358, 396; 3 Wheaton, 304.) Hence congress have power to inflict punishment in cases not specified by the constitution; such power being implied as necessary to the sanction of the laws and the exercise of the delegated powers. (4 Cranch, 146; 3 Wheaton, 336;) and to exact an oath of office, (4 Wheaton, 415;) and to punish larceny of letters from the post-office, or robbery of the mail, (*ibid.* 417;) and to create a corporate bank, if necessary, for carrying into effect the powers vested in the government of the United States, (*ibid.*; 9 Cranch, 374;) and to secure to the United States a priority of payment from the effects of an insolvent debtor. (2 Cranch, 159; 9 Cranch, 374.)

The prohibition to pass *ex post facto* laws applies exclusively to criminal or penal cases. 3 Dallas, 386; and see on this article 1 Cranch 109; 4 Dallas, 14.

The president's instructions are no justification to illegal acts.—Little v. Bareme, 2 Cranch, 170.

Public Works. The exercise of authority by congress over great public works, commonly spoken of under the terms, "internal improvements," as roads and canals, and the like, is an occasion of much controversy in the United States, which seems to tend towards limiting the extent hitherto assumed by the federal government. See Webster's Speeches, pp. 393, 398; President Madison's Letter; and the Southern Review for May, 1828, pp. 286, 290.

The regulations of the houses of congress resemble in many particulars those of the houses of parliament; in other respects they have made original rules.

The house of representatives choose their own speaker, but the vice-president of the United States is *ex-officio* president of the senate, and gives the casting vote when they are equally divided.

The proceedings and discussions in the two houses are public; but less careful provision seems to have been yet made for reporting the debates and proceedings than, as we shall hereafter find, have been made in regard to the courts of justice.

The constitution of the United States requires no evidence of property in the representative, nor any declaration of religious belief; but he must not hold any office under the United States.

A member of congress may be expelled for a high misdemeanour.—The cases of W. Blount, 1797, and J. Smith, 1807.

No member of congress shall hold any contract to be made in behalf of the United States.—Act, April 21, 1808.

By the act of 7th March, 1822, the representatives are apportioned according to a ratio of one for every forty thousand persons, making two hundred and thirteen members, the present number of the house; besides delegates from three of the territories belonging to the United States, who have a right to debate, but not to vote.

The elections are held at stated seasons established by law. The people vote by ballot, in small districts, and public officers preside over the elections, receive the votes, and maintain order and fairness. Though the

The question how far state governments have concurrent power, in the legislative or judicial, over cases within the jurisdiction of the government of the United States, has been much discussed. The correct principle is, that whenever the terms in which a particular power has been granted to congress, or the nature of that power, require it to be exercised exclusively by congress, the subject is as absolutely taken from the state legislature, as if they had been forbidden to act. When the laws of particular states and the laws of the Union are in direct and manifest collision, those of the Union being the supreme law of the land, are of paramount authority; and the state law, so far only as such incompatibility exists, must yield. If a particular state and the Union impose taxes on the same article, it has been questioned whether the Union would have the priority of payment. But the United States have declared by law that they are entitled to such priority in respect to debts. The concurrent power of legislature in the states seems, indeed, to be not an independent, but a subordinate power, liable, in many cases, to be extinguished, and in all cases to be postponed to the supreme law of the Union, whenever the federal and the state regulations interfere with each other.^a

It is an illustration of the success which has attended the efforts of the Americans to strengthen the guarantees of good government, and make "the fiend, Discretion," with all its vices, give place to the many virtues of "sovereign law," that the statutes of the country mark out their duties even to the great officers of government.^c To listen to the advocates of despotic authority in Europe, and even to competition between candidates is generally active, the elections are everywhere conducted with tranquillity. A very few exceptions occur to voting by ballot, as in Kentucky and Virginia; and in 1821, when the constitution of Massachusetts was amended, it became a question, whether the votes of the people upon the proposed clauses of amendment should be taken, in the towns of 4,000 inhabitants and under, by ballot or not. Upon a division in the convention, a majority of 185 to 69 was against the ballot being necessarily the way of taking the votes upon that occasion, which was left to the select men.—*Massachusetts Convention Debates*, p. 272.

The electors of the president, or vice-president of the Union, under section I. of the second article of the Constitution, have been appointed hitherto, either upon the plan of balloting by what is termed "General Tickets;" or upon the plan of balloting "by districts." On the former plan, each voter in the state puts into the balloting-box a list of all the individuals whom he chooses for the whole state. On the latter plan, the voters of separate districts in the state put into the box the name, or names of the elector or electors for their districts; and separate majorities determine the choice of the individuals, who are afterwards united, in order to become the electors for that whole state.

Voters are, for the most part, all the resident *white* men of twenty-one years of age. The qualification of 200 dollars in property was abolished in Massachusetts in 1821; and that of being a freeholder was abolished in Virginia in 1830, and in other states in earlier years. Indians, if taxed, vote in Maine; and in New York a man of colour may vote, if possessed of a freehold worth 250 dollars; generally, men of colour are expressly excluded. In some cases, in Connecticut, "good moral character" is necessary to the voter. In Vermont, he must be "of quiet and peaceable behaviour." In almost all cases, residence of three, six, or twelve months in their particular state, before voting, is required. Sometimes the qualification for voting for senators differs from that of voting for members of the house of representatives.

^a For this doctrine, and indeed for a large portion of this chapter, we are indebted to Chancellor Kent's *Commentaries on American Law*, a work that does not require the humble tribute of our praise.

^c 6 Wheaton, 411; 3 Hall's Law Journal, 130.

those who are guided only by the English public service of the last half century, it would be supposed that abject submission to a superior's command is an inevitable adjunct to vigorous official service; and that to pause till convinced of the legality of an order, would be incurring the great evil of a feeble administration of affairs. The modern Americans wisely think otherwise; and are, therefore, realizing the excellent system of official responsibility, combined with sufficient and safe despatch, which the old English constitution, with its forgotten oaths of office, and neglected statutes, equally aimed at, and which modern English reformers must revise and improve.

A grave exception to the rule, that law governs every thing in the United States, is to be found in the want of legal redress for claimants upon the funds or justice of the government. The United States cannot be sued; and no other remedy exists for a creditor who is refused payment at the treasury, or elsewhere, than an application to congress. There is even no lien against the government for advances made to its use. This is one of the principles imported from the old governments of Europe, which arm the strong against the weak, and, like the priority given to the United States as creditors, ought to be removed from an enlightened system of legislation.

The theory of even the parent English constitution is adverse to this rule. There, as well as in the United States, every wrong is presumed to have its remedy, and every claim its redress; but it is abundantly clear that, without peremptory access to a fixed judicial tribunal, invested with the ordinary duty to dispense right to every complainant, redress will often be sought in vain. Legislative justice, or justice to be granted only on the grace of a sovereign to a petition, implies the exercise of a discretion, which is but too apt to be swayed by personal considerations or by the feelings of the times. Long experience in England has proved how great is the evil of this principle there; and already have some very serious inconveniences to individuals arisen from it in America, where it is peculiarly discordant with the almost universally good guarantees established by the republic in defence of rational freedom. There are many cases requiring redress which the ordinary courts do not receive, the parties being left to the eleemosynary remedy of petitions to congress. The dependence of congress upon popular elections checks the evil prevalent in other countries on the point; but the complaining party finds *interest* needful, a thing always fatal to peace, and often to justice. How precarious a petitioner may find his situation in such a state of things, is pleasantly to be learned from the passage in the note below.*

* "Mr. Gallatin came to Virginia when a very young man; he was obscure and unknown, and being engaged in some agency which made it necessary to present a petition to the assembly, he endeavoured to interest the leading members in its fate, by attempting to explain out of doors its merits and justice. He spoke English so badly that they could not understand him well enough to feel any interest either for him or

The executive power vested in the president by the foregoing written constitution, and the influence to be obtained from the nomination to public offices, have often been commented upon severely as great defects; and the proposed remedy to be found in disqualifying the president from a second election has recently been urged upon congress and the people with renewed earnestness. In some of the states, as in Louisiana, checks have been devised against the appointment of unfit persons to public posts; and throughout the Union, unquestionably, the president, or any governor who should make such unfit appointments, as in England any minister who should advise them, would be punishable;—the English minister under the old common law, which prescribes, that the best men shall be placed in offices of trust; and the American president, or governor, under the portion of the common law originally carried from home upon this important subject. The power of the president, however, to remove all executive officers at his will or pleasure has been settled, not indeed judicially, but by the declared sense of the legislature, and the uniform acquiescence and practice of the government.

The appointment and the removal of public functionaries, however, have not failed to attract much consideration in the United States. If any doubt exists, whether the ancient statute of Richard the Second, that public offices shall be given only to the "best" men, applied to the old colonies, unquestionably the still more ancient common law of the like tenour, on which that statute was founded, was carried by the first settlers to America, and was retained at the revolution. Popular election is the grand check on favouritism and on the mischievous principle of patronage; but attempts, as above stated, have been made in this matter, to impose rules upon the exercise of irregular discretion; and traces may be found, even in periods of strong popular excitement, of just preferences prevailing in favour of fit public officers, whose fair claims were endangered by the violence of party spirit. Occasions sometimes occur when sound views upon this subject are of great importance. Changes take place amongst leaders; and their power is often sought to be strengthened by a change of the subordinate functionaries. In 1801, circumstances of this kind happened;

his petition. In this hopeless condition he waited on Mr. Henry, and soon felt that he was in different hands. Mr. Henry, on his part, was so delighted with the interview, that he spoke of Mr. Gallatin everywhere in raptures; he declared him, without hesitation or doubt, to be the most sensible and best informed man he had ever conversed with: 'he is to be sure,' said he, 'a most astonishing man.' The reader well knows how eminently Mr. Gallatin has justified Mr. Henry's sagacity."—*Wirt's Life of Patrick Henry*, p. 410.

This case was one of harmless exertion of interest; but it suggests the importance of a rule, that all who have claims to prefer to the consideration of public assemblies, or to sovereigns, should be entitled to be heard as of course, and with attention, upon a statement of their claims. *Petitions* are forms only fit to be addressed to the Deity.

The foregoing defect in the American constitution has long been regretted; (St. George Tucker's *Blackstone*, vol. i. part i. Appendix, p. 117, 1803;) and in the speech of the president to congress in 1831, it is intimated that an amendment of the law is strongly desired.

and the correspondence of President Jefferson for that year furnishes admirable comments upon the duty of government in such conjunctures. Certain merchants of New England had remonstrated with the president for appointing a particular individual to one post, and for removing another individual from another post. In reply, Mr. Jefferson admits fully the right and the usefulness of such remonstrances; and adds, — “Of the various executive duties, no one excites more anxious concern than that of placing the interests of our fellow-citizens in the hands of honest men, with understandings sufficient for their stations. No duty, at the same time, is more difficult to fulfil. The knowledge of character possessed by a single individual is, of necessity, limited. To seek out the best through the whole Union, we must resort to other information, which, from the best of men, acting disinterestedly and with the purest motives, is sometimes incorrect.” The grounds of the appointment are then stated, concluding with these words:—“The remonstrance, indeed, does not allege that the office has been ill conducted; but only apprehended that it will be so. Should this happen in event, be assured I will do in it what shall be just and necessary for the public service. In the mean time, the person appointed should be tried without being prejudged.” In reply to a case of removal complained of, the president says, “When it is considered that, during the late administration, those who were not of a particular party in politics were excluded from all office; when, by a steady pursuit of this measure, nearly the whole offices of the United States were monopolized by that party; when the public sentiment at length declared itself, and burst open the doors of honour and confidence to those whose opinions they more approved, was it to be imagined that this monopoly of office was still to be continued in the hands of the minority? Does it violate their equal rights to assert some rights in the majority also? Is it political intolerance to claim a proportionate share in the direction of public affairs? If the will of the nation, manifested by their various elections, calls for an administration of the government according with the opinions of those elected; if a due participation of office is matter of right, how are vacancies to be obtained? Those by death are few; by resignation none. Can any other mode than that of removal be proposed? This is a painful office; but it is made my duty, and I meet it as such; I proceed in the operation with inquiry and deliberation, that it may injure the best men least, and effect the purposes of justice and public utility with the least private distress; that it may be thrown, as much as possible, on delinquency, on oppression, on intolerance, on anti-revolutionary adherence to our enemies. The remonstrance laments that a change in the administration must produce a change in the subordinate officers; in other words, that it should be deemed necessary for all officers to think with their principal; but on whom does this imputation bear? On those who have excluded from office every shade of opinion which was not theirs; or on those who have been so excluded? I lament sincerely that

unessential differences of opinion should ever have been deemed sufficient to interdict half the society from the rights and the blessings of self-government—to proscribe them as unworthy of every trust. It would have been to me a circumstance of great relief had I found a moderate participation of office in the hands of the majority. I would gladly have left it to time and accident to raise them to their just share; but their total exclusion calls for prompter correction. I shall correct the procedure; but, that done, return with joy to that state of things, when the only questions concerning a candidate shall be—Is he honest? is he capable? is he faithful to the constitution?”

What has already been said of executive government relates, in a great measure, to the Union. That of the separate states is not less important. Its character may be collected from the constitution of the two states, and from various details already presented to the reader. In those states, the governors and other functionaries derive their powers from the constitution and statutes of the states respectively. But in the territories not yet admitted as states into the Union, special acts of congress determine these points independently of the inhabitants of these territories. The appointment, succession, correction, and removal of such governors and functionaries, are determined often directly, and in all other cases indirectly, by the votes of the people. The people, too, transact many public affairs in their own persons in townships, of which Massachusetts has for nearly two centuries exhibited examples not to be surpassed in excellence in any nation in the world. The constitution of 1780, for example, declares, as the old laws directed, that education

• The course actually taken was somewhat opposed to the eagerness of the majority; but the republican administration of Mr. Jefferson persevered in it, and, in 1802, he again describes it in the following terms: “I still think our original idea as to office is the best; that is, to depend for obtaining a just participation, on deaths, resignations, and delinquencies. This will least affect the tranquillity of the people, and prevent their giving in to the suggestion of our enemies, that ours has been a contest for office, not for principle. To these means of obtaining a just share in the transaction of public business shall be added one other; to wit, removal for electioneering activity, or open and industrious opposition to the principles of the present government, legislative and executive. Every officer may vote at elections according to his conscience; but we should betray the cause committed to our care were we to permit the influence of official patronage to be used to overthrow that cause.”

In the spirit of these principles, Mr. Jefferson, in old age, expressed strong satisfaction at his own course on this head—a course which affords a noble contrast to the wretched nepotism practised in other countries:—“In the trusts I have exercised through life, with powers of appointment,” says he, “I can say, with truth, and with unspeakable comfort, that I never did appoint a relation to office; and that merely because I never saw the case in which some one did not offer or occur better qualified.” And in a still more important passage on this subject, he also said, “I have never removed a man merely because he was a federalist; I have never wished them to give a vote at an election but according to their own wishes: but as no government could discharge its duties to the best advantage of its citizens, if its agents were in a regular course of thwarting, instead of executing, all its measures, and were employing the patronage and influence of their offices against the government and its measures, I have only requested they would be quiet, and they should be safe; that if their conscience urges them to take an active and zealous part in opposition, it ought also to urge them to retire from posts which they could not conscientiously conduct with fidelity to their trusts; and, on failure to retire, I have removed those who maintained an active and zealous opposition to the government.”—*Jefferson's Correspondence*, vol. iii. pp. 474—508; vol. iv. pp. 397, and 101. (A. D. 1824.)

shall be duly provided for by public schools and grammar schools in the towns ; and the duty of making this provision is imperative on the township corporations elected by the people ; the breach of which duty may be punished by indictment, preferred by any inhabitant. Again, the same constitution declares, as the ancient law sanctioned, that the people have a right, in an orderly and peaceable manner, to assemble to consult upon the common good, and, by way of addresses, petitions, or remonstrances, to seek redress of grievances of the legislative body. Such rights as these are for the most part exercised through the townships, where the select men would be subject to punishment in the courts of law if they obstructed the holding of public meetings on such subjects.

The expenditure of money for local purposes, as the building of court-houses and the like—the assembling of militia—election of officers—and the appointment of constables for the preservation of the peace, are vested in the same local divisions, whose disinterested, wise, and vigorous exertions in the great contest for independence, have been justly eulogized by one of the most eminent American statesmen of the present day,^t and which were thought models for good internal government by the ablest of his predecessors."

The judicial establishments of the United States are the supreme court, the circuit courts, and the district courts ; besides which, each state has its own judiciary, connected, by appeals and otherwise, with that of the Union.

The supreme court consists of a chief-justice and six associate justices, any four of whom are a full court ; and any one can make orders in suits preparatory to the hearing or trial. It holds one term annually, which begins in January ; it has exclusive jurisdiction in all causes of ambassadors and the like, and also in all civil causes in which a state is a party, except in suits by a state against one or more of its

^t "We have not always," says Mr. Webster, "done justice to the merits and to the sufferings of those who sustained, on their property, and on their means of subsistence, the great burden of the revolutionary war. Any one who has had occasion to be acquainted with the records of the New England towns, knows well how to estimate these merits and these sufferings. Nobler records of patriotism exist no-where ; no-where can there be found higher proofs of a spirit that was ready to hazard all, to pledge all, to sacrifice all, in the cause of the country. The voice of Otis and of Adams, in Faneuil Hall, found its full and true echo in the little councils of the interior towns ; and if, within the continental congress, patriotism shone more conspicuously, it did not there exist more truly, nor burn more fervently ; it no-where made the day more anxious, nor the night more sleepless ; it sent up no more ardent prayer to God for succour ; and it put forth, in no greater degree, the fulness of its effort, and the energy of the whole soul and spirit in the common cause, than it did in the small assemblies of the towns." — *Mr. Webster's Speech in the Convention of Massachusetts, in 1820, on the Apportionment of the Senate*, p. 245. *White's Digest of the Laws of Massachusetts*, 1809.

^u In describing what he thought the best organization of government, Mr. Jefferson says,—“The townships of New England are the vital principles of their governments, and have proved themselves the wisest invention ever devised by the wit of man for the perfect exercise of self-government, and for its preservation.” — *Correspondence*, vol. iv. p. 297.

citizens, or against citizens of other states, or aliens. In these excepted causes it has original, but not exclusive jurisdiction. It also receives appeals from the circuit courts, and in admiralty cases, where the matter in dispute exceeds 2,000 dollars; and a judgment or decree in the highest state court may be brought up, on error in point of law, to the supreme court of the United States, provided the validity of a treaty, or statute of, or authority exercised under, the United States, was questioned in the state court, and the decision was against that validity; or provided the validity of any state authority was questioned as repugnant to the constitution, the treaties, or laws of the United States, and the decision was in favour of that validity; or provided the construction of any clause of the constitution, or of a treaty, or statute of a commission, held under the United States, was questioned, and the decision was against the title, right, privilege, or exemption claimed under the authority of the Union. By a rule worthy of adoption in the superior courts of all countries, the supreme court of the United States may receive and determine a single point of law upon which the judges in the inferior court are opposed in opinion.* The principle of stating specific cases for the decision of the upper courts is not altogether new, and it obviously admits of very advantageous application to all jurisdictions but especially to every country, where, as in English colonies, distant dependencies have to seek the correction of errors, or the check of abuses, almost invited by the remoteness of place, and the inferiority of the primary tribunals. The supreme court can issue prohibitions to the district courts when proceeding as courts of admiralty;—writs of mandamus to any courts appointed by officers of the United States;—writs of *ne exeat* on a suit commenced;—and injunctions, on reasonable notice to the adverse party, but not to stay proceedings in any state court;—and also writs of habeas corpus.

The circuit courts are seven in number, and held in separate districts, extending over eighteen out of the twenty-four states, by one judge of the supreme court of the United States, and the local judge of the district. In special cases, two of the supreme court judges attend; and where the district judge shall be absent, or is interested, one may sit alone. The circuit courts have original cognizance, concurrent with the courts of the several states, of all suits where the matter of dispute exceeds 500 dollars, and the United States are plaintiffs, or an alien is a party, or the suit is between a citizen of the state where the suit is brought and a citizen of another state, and in all suits under any law of the United States on copyright and patent rights. They receive also appeals from all decrees and judgments in the district courts, where the matter in dispute exceeds fifty dollars; and certain cases of the value of 500 dollars may be removed by the defendant from a state court to the next circuit court. In criminal trials they have, with a few exceptions, exclusive jurisdiction of all offences cognizable

* Act of Congress, April 29, 1802.

under the authority of the United States, exceeding misdemeanours; and in misdemeanours they have concurrent jurisdiction with the district courts. After much discussion, it seems⁷ to be now settled, that one of the judges at the circuit courts shall be taken from the sitting members of the supreme court at Washington, who thus carries periodically into distant states the uniformity and learning of the capital, and at the same time acquires much knowledge whilst actually engaged in local affairs.

The districts generally extend over an entire state; but in six states there are more districts than one. A court is established in each district, consisting of one judge, who holds annually four stated terms, and also special courts in his discretion. They have exclusive original cognizance of all civil admiralty causes; of seizures under impost, navigation, or trade laws of the United States, when the seizures are made on the high sea, or on waters navigable from the sea by vessels of ten or more tons' burden; and of all other seizures made, and suits for penalties, under the laws of the United States. They have also concurrent jurisdiction with the circuit and state courts in certain suits by aliens; and of all suits at common law, of 100 dollars' value and upwards, in which the United States are plaintiffs; and over all captures made within the waters of the United States, or within a marine league of its coasts; and they have jurisdiction of proceedings to repeal patents obtained surreptitiously, or on false suggestions. In bankruptcy, a summary jurisdiction, without appeal, has been claimed for the district judges: but the opinions of able lawyers are adverse to the claim; and in the new bankrupt system expected to be established in the United States, no such objectionable authority is likely to be vested in these courts. In criminal trials they have exclusive jurisdiction over offences cognizable under the authority of the United States, committed within their respective districts, or upon the high seas, and punishable by a fine of 100 dollars at the utmost, by imprisonment, not exceeding six months, or by corporal punishment, not exceeding thirty stripes. When the parties have not reasonable time to apply to the circuit court, the judges of the district courts may issue injunctions to continue until the next circuit court; and when the judge of the supreme court cannot conveniently come, the powers of a circuit court are superadded to the ordinary powers of the district court. The district judges of the United States are required to reside within their respective jurisdictions.

⁷ It is, however, even now considered by many persons a great question, whether, by the terms of the constitution, and in accordance with sound policy, the supreme court ought not to be confined, with all its members, to the session at Washington, solely as a court of appeal, except in a few cases of original jurisdiction. From 1789 the judges have made circuits over part of the states, the more remote parts of the Union being too distant for their visitation. If a sufficient number be added for new states of the Union, not now visited by any circuit, the collected members at Washington will, it is thought, partake too much of the character of a popular assembly: and the objection is alleged to be still stronger, if the great duty of the court in appeals is to be impeded by some of its members being the parties appealed from. Upon these grounds it is urged that the circuits from the supreme courts should be abolished. The president's speech to congress, in December, 1831, brought the question under notice.

In appeals to the circuit court, if the circuit judge and district judge associated with him differ, the judgment is according to the opinion of the circuit judge. In original causes, points in difference may be certified to the supreme court for its decision; but in no case shall imprisonment be allowed, or punishment inflicted, where the judges of the circuit court are divided in opinion.

The judicial power of the general government in the supreme court, in the circuit and district courts, is limited to objects more expressly defined by written law than the judicial powers of the state courts; and between the two classes of courts, distinctions deserving of careful notice by the student of the American institutions, have been made by good authority:—1. The cognizance of every crime and misdemeanour whatsoever, committed within the body of any state, belongs to the courts of that state in which the offence is committed, exclusively, unless it can be shewn that power over the subject has been expressly granted to the United States by the federal constitution. 2. The federal courts possess no jurisdiction over any crime or misdemeanour which is an offence by the common law, and not declared to be such by the constitution, or some statute of the United States. 3. Although a certain class of offences may, by the constitution of the United States, be declared to be within the jurisdiction of the federal courts, yet these courts cannot proceed to take cognizance thereof unless they be first defined by the constitution, or by statute, nor to punish them, unless the punishment be likewise prescribed by a statute of the United States.²

The vast field of the law of property, the very extensive head of equity jurisdiction, and the principal rights and duties which flow from civil and domestic relations, fall within the control, and we might also say the exclusive cognizance, of the state governments. The elementary principles of the common law are the same in every state, except Louisiana and Florida, where French and Spanish laws have prevailed.³

The state courts are invested with the cognizance of cases arising under the laws of the United States, in certain suits for taxes, and in certain prosecutions for fines and forfeitures under the revenue laws.

In judicial matters, the concurrent jurisdiction of the state tribunals with the tribunals of the Union depends upon the judgment of congress, and may be revoked and extinguished whenever it thinks fit, in every case in which the subject matter can constitutionally be made cognizable in tribunals of the Union; and, without any express provision to the contrary, the state courts will retain a concurrent jurisdiction in all cases where they had jurisdiction originally over the subject matter.

Both in the courts of the federal government, and in those of the particular states, the important advantage is enjoyed of a very considerable separation of the judicial from

² St. George Tucker's *Blackstone*, vol. iv. Appendix, p. 110.

³ Chancellor Kent's *Commentaries*, p. 418.

the executive and legislative authorities. It is, however, a curious fact, that so late as the year 1820 it was a subject of debate in Massachusetts, whether the judges of that state should continue to be advisers of the executive government, upon questions propounded to them by the governor. During about a century, the old practice in England, that the judges of Westminster Hall should give opinion upon cases from the crown, has fallen into disuse; but its offspring very long survived it in America.^b The independence of judges is variously secured: those of the United States can only be removed by impeachment, and not by address of the house of representatives; they must consequently be accused of specific offences, and be heard before condemnation. This is the general rule of the separate states; but in Virginia they are liable to removal upon the address of the legislature. In Vermont and Rhode Island they are reappointed every year. Other states appoint them for seven, five, three, two, and six years; and able men still differ on what is the right basis, in this respect, of a true judicial independence.^c

In some of the states, the ages of sixty, sixty-five, and seventy, are limited for the holding of the judicial office. No judge of the United States can practise as a counsellor; nor in the supreme court can any counsellor practise as an attorney, nor an attorney as a counsellor. In all the other courts the rule is otherwise; and in this counsellors may be admitted as attorneys. The salary of the chief-justice of the United States is 5,000 dollars; each of the associate justices receives 4,500 dollars; and the attorney-general 3,500. The salaries of the judges of the district courts vary from 1,000 to 3,500 dollars; each of the attorneys-general, and the marshals, or sheriffs of the district courts, receives 200 dollars, with fees; nor does any considerable attention appear to have been yet directed to the very important subject of administering justice without allowing fees to the subordinate officers.

The courts of the several states have long been held by judges bred to the law as a profession; and many of them are eminently learned men. Their yearly salaries vary from 550 to 3,500 dollars. They are appointed by the legislature in fourteen states; by the governor and senate in seven states; by the governors alone in two states; and in the state of Indiana, those of the supreme court are appointed by the governor and senate; the presidents of the circuit courts by the legislature; and the associate judges by the people.

Justices of the peace have to decide many civil causes, to a limited amount in value, besides the criminal and police business within their cognizance; and they are severally liable to removal upon the address of the legislature, and upon condemnation of certain offences, and upon impeachment. In some of the states they are appointed justices by other authorities, and sometimes they are elected by the people;

^b Journal of the Debates of the Massachusetts Convention of 1820, p. 213.

^c St. George Tucker's Blackstone, vol. i. b. 1. Appendix, p. 116

but they are not restrained from seats in the legislature, a circumstance which has been the occasion of much regret to Americans of the highest authority.^d

It belongs to the judicial power chiefly to declare every act of the legislature made in violation of the constitution, or of any provision of it, null and void. Accordingly, in 1791, the judges of a circuit court in New York declared an act of congress, assigning ministerial duties to them, to be unconstitutional, and not obligatory; and in two other states the circuit judges declined to act under the law in any capacity.* In 1792, the supreme court of South Carolina set aside an act of the state legislature as being against common right and the principles of magna charta. In 1795, a judge at Philadelphia declared an act of Pennsylvania to be unconstitutional, and not binding. The same doctrine was maintained afterwards in South Carolina, where the judges claimed to be only the administrators of the public will, and declared the law void, not because they had any control over the legislature, but because the will of the people expressed in the constitution was paramount to that of their representatives expressed in the law. Much later the subject was brought before the supreme court of the United States, when the power and duty of the judiciary to disregard an unconstitutional act of congress, or of any state legislature, was declared as an argument approaching, says Chancellor Kent, "to the precision and certainty of a mathematical demonstration." Until 1823 the judges in the state of New York constituted what was called the council of revision, by which every law was examined before it became a valid statute. The absolute separation of the judicial from the other powers of state is too important to justify a regret that the judges should be withdrawn from this duty; but the testimony of the learned chancellor to whom we have been so much indebted in compiling this summary upon the constitution of the United States, in favour of the labours of the New York council, suggests the importance of attaching to all legislatures a ministerial body of constitutional lawyers, whose reports might merit Mr. Kent's eulogium, "that they would shew that many a bill heedlessly passed the legislature was objected to and defeated on constitutional grounds—reports replete with salutary and sound principles of public law and policy, and monuments of the wisdom, firmness, and integrity of the council." The power of the judges to check the legislative and the executive government, is a power obviously liable to abuse by the courts themselves, and to undue jealousy on the part of those upon whom they are checks. Accordingly, the exercise of this power will be found one of the most interesting subjects to the inquirer into the constitution of the United States. The principal checks upon the judges in their turn are, first, public opinion;—secondly, the indirect elective control of the people over the president and others who appoint the superior judges, and the direct popular control over those

^d Jefferson's Correspondence, vol. iv. p. 296, &c.

* St. George Tucker's Blackstone, vol. i. Appendix.

inferior judges who are elected by the people;—and thirdly, the liability of the judges to impeachment before the elective senate.

The law administered in the courts is, with a just pride, termed by the writers of the United States "American law." Its sources are, 1st, the law of England, wide as that title is, and modified by the great English principle, that colonists take abroad with them only so much of the law of the mother-country as is suitable to their new circumstances; 2dly, in particular states, as Louisiana and the Floridas, so much of other foreign law as affects those places; 3dly, the law of nations and nature; and lastly, but principally, the constitutions and statutes of the United States, and the several domestic legislatures, and the treaties with foreign powers, with the rules and decisions of the courts of law.

It has been a subject of much discussion whether the courts of the United States have a common law jurisdiction, and if any, to what extent. It seems to be settled, that although the federal government has not adopted the common law as a source of jurisdiction, nevertheless that the courts of justice must resort to it largely as the instrument for exercising the jurisdiction conferred by the constitution, and the means of interpreting constitutional language.^f Therefore the study of common law is recommended by Chancellor Kent as part of the jurisprudence of the United States. "In its improved condition in England," says this eminent judge, "and especially in its improved and varied condition in America, under the benign influence of an expanded commerce, of enlightened justice, of republican principles, and of sound philosophy, the common law has become a code of matured ethics and enlarged civil wisdom, admirably adapted to promote and secure the freedom and happiness of

^f Mr. Justice Story, who has occupied an eminent rank amongst the judges of the United States these twenty years, places the true doctrine in a very clear light. "I admit," says he, "that the courts of the United States are courts of limited jurisdiction, and cannot exercise any authorities not confided to them by the constitution and the laws made in pursuance thereof. But I do contend, that when once an authority is lawfully given, the nature and extent of that authority, and the mode in which it shall be exercised, must be regulated by the rules of the common law. Whether the common law of England, in its broadest sense, including equity and admiralty, as well as legal doctrines, be the common law of the United States or not, it can hardly be doubted that the constitution and laws of the United States are predicated upon the existence of the common law. The constitution, for instance, provides that 'the trial of all crimes, except in cases of impeachment, shall be by jury.' I suppose that no person can doubt that, for the explanation of these terms, and for the mode of conducting trials by jury, recourse must be had to the common law. So the clause, that 'the judicial power shall extend to all cases in law and in equity arising under the constitution,' &c. is inexplicable, without reference to the common law; and the extent of this power must be measured by the powers of courts of law and equity, as exercised and established by that system. Innumerable instances of a like nature may be adduced. I will mention but one more, which is in the clause providing that the privilege of the writ of habeas corpus shall not be suspended, unless when, in cases of rebellion or invasion, the public safety may require it. What is the writ of habeas corpus? What is the privilege which it grants? The common law alone furnishes the true answer. The existence, therefore, of the common law is not only supposed by the constitution, but is appealed to for the construction and interpretation of its powers." *The United States v.*

^g Coolidge.—1 *Gallison's Reports*, p. 488. 1813.

social life. It has proved to be a system replete with vigorous and healthy principles, eminently conducive to the growth of civil liberty; and it is in no instance disgraced by such a slavish political maxim as that with which the Institutes of Justinian are introduced. It is the common jurisprudence of the people of the United States, and was brought with them as colonists from England, and established in America, so far as it was adapted to our institutions and circumstances. It was claimed by the congress of the united colonies, in 1774, as a branch of those 'indubitable rights and liberties to which the respective colonies are entitled.' It fills up every interstice, and occupies every wide space, which the statute law cannot occupy.^g The learned Du Ponceau correctly observes,^h "We live in the midst of the common law; we inhale it at every breath, imbibe it at every pore; we meet with it when we walk, and when we lie down to sleep; when we travel abroad, and when we stay at home; it is interwoven with every idiom of our tongue; and we cannot learn another system of laws without learning at the same time another language." Upon this somewhat rhetorical claim of a participation of the old common law, as carried from England, the Americans have also erected the further very important doctrine, that usages peculiar to the United States have been ingrafted upon it, so as that there is now produced an American common-law jurisprudence, different in many respects from that of their forefathers, and in harmony with their own more republican institutions.

Equity has been less universally introduced than the other branches of the common law. In Massachusetts, Pennsylvania, and some other states, there are no courts of equity; but equity processes are given to the courts on some points; and public opinion seems to be favourable to the extension thither of that system of chancery law, which, through the eminent judicial labours of Chancellor Kent, has been brought to a very improved condition in New York. The topic, however, is open to interesting questions, and is much discussed. In Virginia, and perhaps in other states, a principle of equity has been transferred to the common-law courts, where the parties, in civil actions, may examine their adversaries upon interrogatories, and without prejudice to a bill of discovery in chancery.ⁱ

The laws regulating property, and intercourse between man and man, are, in many respects, similar to the laws of England on the same subject matter. In numerous points, however, great changes have been made;^k but the difficult and subtle

^g Chancellor Kent's Commentaries, vol. i. p. 322.

^h Du Ponceau on Jurisdiction, p. 91. On this subject, how ever, other adverse authorities should be consulted by the student, as St. George Tucker's Blackstone, vol. iv. p. 9.

ⁱ Laws of Virginia for 1830, sect. 68

^k "The nature and extent of the improvement will be placed in a strong light by the following enumeration of the changes made in one or more of the states:-- 1. Abolition of feudal tenures, including copyholds. 2. Abolition of tithes. 3. Making both the real and personal property of intestates descend to the same

questions arising out of the contingencies created by the free disposal of property, by conflicting claims, and by doubtful construction, are necessarily numerous in all the courts of the Union. The forms of proceeding and practice in the courts have been extensively simplified, although on this head much remains to be improved.¹ The reduction of the court officers to a clerk and the common crier, indicates how large a portion of the old and useless machinery has been dispensed with. The writ of habeas corpus has not only been secured, as in England, but its remedy has been extended by the power given to the judges of investigating the real merits of each case without confining themselves to the face of the return. Imprisonment for debt has been abolished in some of the states; and in almost all, females are exempt; and there is an increasing disposition to abolish it throughout the Union, both under mesne process and in execution.^m

person. 4. Enabling parents to become heirs to their children. 5. Abolition of primogeniture and of preference of males in descents. 6. Making all estates descend in the same course, whether acquired by purchase or by descent, from paternal or maternal relations. 7. Abolishing the preference of male stocks in descents. 8. Enabling half-blood relations to inherit. 9. Making husband and wife heir to each other in case of failure of blood relations. 10. Making seisin of land pass by the mere delivery of the deed. 11. The general registration of deeds. 12. Making a fee-simple pass without the word 'heirs,' or any equivalent, when a less estate is not expressed. 13. Enabling tenants in tail to convey estates in fee-simple without a fine or recovery. 14. Enabling married women to convey their estates and bar their dower without a fine. 15. Change of joint tenancies into tenancies in common. 16. Removing the disabilities of alienage with regard to real property. 17. Abolition of the doctrine of tacking in mortgages. 18. Placing lands mortgaged, as well as the debt, at the disposal of the mortgagee's executor. 19. Making real estates liable to execution and sale for debt. 20. Rendering real-estate assets to pay debts without any preference. 21. Shortening the time of limitation."—*The American Jurist*, No. 1. p. 99.

¹ Upon the subject of pleading, Mr. Dana, the author of the Digest, says, "In modern, and especially in American practice, a great degree of liberality has been admitted, in giving matters formerly pleaded in evidence under the general issue. It is a very general practice in the United States to agree to cases, signed by the parties, for the opinions and decisions of the courts. Pleas in abatement are almost disused. Broad and very liberal statutes of amendments in the pleadings have been enacted in the United States in addition to the statutes of this sort adopted from England; still the art of pleading is one which the Americans are seeking to simplify."—*Digest of American Law*, vol. v.—Title, "Pleading."

In Louisiana, the forms of pleading by the civil law prevail, of which an able judge says, "I cannot help paying my humble homage to the excellence of this code, which, adapting its remedies to the exigency of the case, gives complete relief without trammeling itself with prescribed forms, which often perplex, and sometimes defeat, the ends of justice."—*American Jurist*, No. 1, p. 17. This testimony is given to the civil-law forms, compared with those derived from English pleadings.

"In England," says a learned writer in the *Southern Review*, for August, 1831, "the mere subtleties of pleading, such as go not to the merits, but to immaterial allegations, are too much encouraged. The record being paid for, and most extravagantly paid for, according to its extent, is the excuse for this,—(Burton v. Wright; Douglas and Cowper;) but it were better that no necessity for such an excuse existed, as now exists here, where (to borrow a phrase of our own courts) 'the law mechanic' is paid a lumping price for the job. It would be well for England if she would copy after most of our judicial reforms, so far as they may not be inconsistent with the frame and policy of her constitution; and it is, no doubt, a very great compliment to the wisdom of our predecessors, that there is a marvellous coincidence between the reforms projected in that country, by her ablest men, and those which have been so generally adopted among us."—P. 393.

^m In Kentucky and Ohio imprisonment for debt is abolished; and the managers of the Boston Prison Discipline Society add, in their Report for 1830, "A similar law in the northern and middle states would have

In the study and practice of mercantile law,^a the American lawyers have made very great advances; and in these branches they have perhaps as far surpassed the English lawyers as they are excelled by the latter upon questions respecting titles to lands and real property, which are discussed much more frequently in England than the simplicity of that branch of the law requires in America. The deep learning and subtle argument displayed upon other legal topics, which might be thought peculiar to our own country, evince the great legal powers of the advocates of the American Bar.

In admiralty causes, there is understood to be the greatest similarity between the systems of America and Great Britain. The reputation of Lord Stowell is very high in the former country, and, with some exceptions, attributed to particular circumstances, the differences between his decisions upon prize^o law, and those promulgated by the supreme court of the United States are so few, it is said, as to be almost evanescent. After the most powerful arguments, and under the highest political excitements, there has been but a single principle adopted by him which has been deliberately overruled by the supreme court; and on that occasion there was a serious difference of opinion among the judges.^p It deserves, however, to be remarked, that the judge who is the most eminent for his early and continued success in the study of the mercantile and shipping-laws, Judge Story, is also earnest in his expressions of respect towards Lord Mansfield and other English judges who have improved these branches of jurisprudence.^q

The criminal laws are remarkable for their mildness; although, in other respects, as in their distinction between felonies and misdemeanours, and in some of the consequences of that distinction, they resemble the English criminal law. Although trial

saved from imprisonment during the last year, as nearly as we can ascertain, about fifty thousand persons. The number of persons discharged by the creditor or his attorney is more than three times as large as the number of those who pay the debt."—Pp. 369, 370.

By the constitution of Pennsylvania it is provided, that "the person of a debtor, where there is not a strong presumption of fraud, shall not be continued in prison after delivering up his estate for the benefit of his creditors." By the laws of the same state, however, and by those of most parts of the Union, all personal estate, whether in funds or otherwise, and all real estate, whether legal or equitable, are liable to execution. Great facilities are afforded to creditors to obtain payment of debts from any property belonging to the debtor, but personal liberty is exposed to few restraints, even in the case of insolvency; and no inconveniences are believed to arise from this state of the law.—*House of Commons' Papers for 1831*, No. 92, p. 214:—"Evidence of Richard Biddle, Esq. before the common-law commissioners."

^a See particularly the arguments of Mr. Webster, on collegiate endowments, and on the impeachment of a judge of probate.—*Webster's Speeches*, pp. 110 and 138.

^o It deserves to be recorded, to the honour of the United States, that the practice of privateering has been abandoned by the Americans in a treaty with one European power; and that they have earnestly sought to impose further restraints upon this barbarous practice by similar treaties with other powers.

^p *North American Review for January, 1825*, p. 66.

^q Judge Story's Address to the Suffolk Bar. *American Jurist*, No. 1. p. 15; and see the passages in the last note to this chapter.

by jury is perfectly understood in the United States, and generally used, yet justices of the peace decide upon some felonies, as petty thefts, without a jury, unless the accused claims a jury trial; and in slaves' cases juries are very far indeed from being universal. Treason is confined, by the express terms of the Constitution, to narrow limits. The only capital offences in any of the states are treason, murder, burglary, robbery from the person, and rape; and all these offences, except murder in the first degree of atrocity, are, in most of the states, usually followed by secondary punishment; and in some of the states they are liable to secondary punishment only. In Pennsylvania no crime is punishable with death, but murder perpetrated by means of poison, or by lying in wait, or by some other kind of wilful, deliberative, and premeditated killing, or perpetrated in the commission of certain crimes which were formerly capital;^{*} and great exertions are making in that state and elsewhere in North America, not only to mitigate all severity in the criminal law, but especially to abolish all capital punishments.[†] It is said,[‡] nevertheless, that the recent legislation of the federal government in congress is more severe than that of the separate states either before or since the revolution of 1776. Prosecutions for all capital offences, except for wilful murder and forgery, are limited to three years after the offence was committed; and for offences less than capital to two years, unless the person flees from justice. Imprisonments under game and vagrant laws are unknown. Colonies of convicts have not yet been established,[§] with all the horrors attendant upon communities of unrestrained men, necessarily disproportioned in number to females, and

^{*} First and Second Reports of the Inspectors of the Eastern State Penitentiary of Pennsylvania. Philadelphia, 1831, p. 11.

[†] Remarks on the Expediency of abolishing the Punishment of Death. By Mr. Livingstone. 1822, and reprinted in Philadelphia, 1831.

[‡] The skilfully drawn statute of 1825, commonly called Mr. Webster's Crimes' Act, awards death to those who set fire to dwelling-houses in dock yards, or to government vessels, although no life be lost by either crime; but those who commit arson in other circumstances, or who forge on the public, or who plunder ships, or use dangerous weapons, with intent to murder, but no death ensues, are by this statute made liable to limited fines and imprisonment only.

[§] It has, however, been proposed to form a convict colony under the most dangerous circumstance of permitting the convicts to govern themselves, uncontrolled, after transportation. The commissioners on the penal code of Pennsylvania, in 1828, reported upon this proposal in the following terms:—"We should have little to remark upon this method of punishment, were it not that it has recently been pressed upon the legislature and the public by some of our active and well-intentioned citizens. It has been suggested that the objects and ends of punishment might be attained, were the government of the United States to take possession of some uninhabited island, such as the Island of Tristan da Cunha, in the Atlantic Ocean; where the states might leave their convicts, with a stock of food and tools, to their own exertions." The commissioners justly conclude that the objections to the scheme which they set forth will prevent its adoption.—*Pennsylvania House of Representatives' Report*, 4th June, 1828, p. 9. A like proposal was half adopted by the English government fifty years since, and stopped by proceedings in the House of Commons.—*Commons' Journals*, vol. xl. In regard to the New South Wales transportation system, the Americans seem to appreciate its evils both in point of expense, and in point of incapability to reform offenders.—*Report of the Commissioners*, p. 11.

of dishonest people neither corrected nor discountenanced by an ordinary proportion of individuals of good principles.

The system of the best American penitentiaries has at length, after many disappointments and much controversy, reached the great excellencies of restoring many of the inmates to society in an improved condition, both as to character and morals; and also of defraying the charges of the prisons by the reformatory labour of the prisoners. The history of this system is one of the most interesting examples of the perseverance and good feeling of the people of the United States; and it is with regret that we can do little more than allude to it. William Penn early instituted in Philadelphia solitary confinement and labour for the punishment of death, with the best effects. His views were disapproved in England, and the common law was restored to supersede his innovations, when crime increased. In 1786, labour alone, upon the public works, was inflicted upon capital criminals; and the decrease of offences was not rapid. But after 1790, the rule of solitary confinement, along with labour, was revived, when, from that year until 1793, out of 200 convicts who underwent this discipline and were pardoned, four only were recommitted, and crime generally decreased, although the population daily increased. After 1793, this prison became crowded, and the separation of the prisoners from each other could not be accomplished. The consequence was an increase generally of criminals. "This double result," says Mr. Livingstone, to whom we are indebted for these facts, "of a rapid and before unheard-of decrease whilst the convicts were both separated and employed, and an increase when they were suffered to associate, seems to solve the great problem of penal jurisprudence, and points to seclusion and labour as effectual remedies for the prevention of crime; for these effects were produced without any change in the state of society at the two periods that could be favourable to such results."* "In all the other states," he continues, "a similar result has been observed. During the first year, when there was room for classification, the most sanguine hopes of humanity were surpassed by the effect. But, with the promiscuous intercourse of the convicts, offences increased both in number and in atrocity." He therefore insists upon the necessity of classifying the various denominations of prisoners; and also of employing them profitably to themselves as well as to the state, in labour of the hands, of the heart, and of the mind; and completes his benevolent and statesman-like design in the following terms: "To avoid a relapse, an asylum is provided in the house of refuge and industry. Here the discharged convict may find occupation and subsistence, and receive such wages as will enable him to remove from the scenes of his past crimes, place him above temptation, confirm him in his newly acquired habits of industry, and cause him safely to pass the dangerous

* Livingstone's Introductory Report, folio, p. 5.

period between the acquisition of his liberty and restoration to the confidence of society. Independently of this resource, the industrious convict receives at his discharge a proper proportion of his surplus earnings, he receives friendly advice as to his future pursuits, and a certificate, if merited, of such conduct as will entitle him to confidence. The consequences of his reconviction are solemnly represented to him, and his conduct, if he remain in the neighbourhood of the prison, is carefully watched, so that, if he return to habits of idleness and intemperance, his career to crime may be stopped by commitment to the house of industry as a vagrant.”^y

Upon similar views, to a certain extent, with those of Mr. Livingstone, many penitentiaries have been built with the best effects.^z If their projectors are favourably circumstanced in regard to the value of labour, the cheapness of which in England is a great difficulty in prison discipline, in an economical light, they deserve our unqualified respect for persevering through many intrinsic difficulties in the nature of bad habits and crime, so as unquestionably to have proved that men of the most desperate character may be reformed by steady care, and liberal and just coercion. The grand proof of this rests upon the fact of the inmates of the American penitentiaries becoming again offenders in a proportion incomparably less than those who are not, either in America or other countries, subjected to reformatory penitentiary discipline. Whipping is abolished in Massachusetts; and in other states earnest endeavours have been made for its abolition. On the subject of whipping, Mr. Livingstone's argument deserves the deepest attention on the part of all European governments. In the comparative view of the punishments annexed to crime in the United States and in England, by Mr. Sydney Taylor of the Middle Temple, which has been published by the Society for Diffusing Information on Capital Punishments, it is well remarked, that “although the legislators of the United States deserve credit for the improvement which they have introduced in their criminal laws, perhaps it would have been better to have repealed the old English laws and to have commenced a new structure on a more civilized system, as Mr. Livingstone's code for Louisiana, which has departed from the old system altogether, approaches nearer to excellence than any

^y Livingstone's Introductory Report, folio, p. 51.

^z The great model penitentiaries in the United States are at Sing Sing, Auburn, and Wethersfield; but many others are rapidly springing up in all parts of the Union. The best approved system is briefly this:—to employ the prisoners in quietness and silence, in various labours, part of the profits of which is given to them on being discharged with good character; to separate them completely from each other at night, and much during the day; to instruct them in trades, in letters, and in religion; to treat them with gentleness, but firmly; and to promote their reestablishment in society after being released. The results at Auburn may be taken as an example of the success of this system: there, out of 600, only seventeen have committed new offences during a considerable time after being released; and out of 206 of those who have undergone punishment in this prison, 146 well-authenticated cases of reform have been recorded, which results have been justly held forth to the consideration of the British public, in the Eighth Report of the Prison Discipline Society; whilst the system is at length brought under discussion in a committee of the House of Commons on secondary punishments.

of the most improved editions of the original model. The criminal laws of the United States are not entirely free from the imputation of confounding offences of distinct characters; but they have, at least, partially achieved what the English parliament has wholly neglected—the establishing a gradation of punishment according to the degrees of guilt.”

This discipline is not yet probably adopted upon a sufficiently extensive scale throughout the Union to occasion the general low state of crime there. The fact, that in several of the states criminals are only in the very small proportion of 1 to 5,000 and 1 to 3,000 of the population is, doubtless, chiefly attributable to the abundance of employment at the command of the poorest, and to the anxious care bestowed by the public upon the instruction of the most destitute and ignorant. It would therefore be too much to attribute the paucity of criminals in the United States to the mildness of the law. But the fact of that paucity is certainly honourable to the character of the law as well as to many other circumstances in the condition of the people. Although the whole number of crimes and misdemeanours committed yearly cannot perhaps be exactly ascertained, the amount may be safely conjectured from the following facts: In July, 1826, out of a population of 946,133, in all the counties except seven in Pennsylvania, the number of persons, tried and untried, in prison was 284, of whom, as near as could be fixed, 221 were males and 45 were females. The number of them born in Pennsylvania was 131; of those from other states of the Union 82; and 35 were foreigners. The whites were 183 in number; the people of colour and blacks were 83. This is one to above 3,600, tried and untried; a proportion scarcely to be paralleled in the records of any other people.

In one of the states, and perhaps in others, there is the very important institution of what is designated an examining-court, which takes cognizance of criminal cases in an earlier stage than can be convenient to an ordinary court, and which is more solemn than the authority of a committing justice of the peace. The committing justice summons a bench of other justices, within ten days of the first disposal of the case, for the examination of the facts. This court considers whether the prisoners may be discharged from further prosecution, may be tried in the county court, or must be tried in the district courts. It is plain that this preparatory tribunal must add greatly to the just and merciful administration of criminal law, an end also promoted in Virginia, the state in which it prevails, by power being given to two judges to bail any prisoner according to their discretion.

It is a point further deserving of notice, that sundry laws have been made in some of the states to enable juries to apportion punishment as well as to pronounce verdicts of guilty or not guilty.

In some of the states, laws have been applied to acts, which, in modern times, have either been left elsewhere to moral influence, or which have evaded the care of

legislators in Europe. For example, in Pennsylvania, an habitual drunkard, found so by the verdict of a jury, loses the control of his children, whom the wife may, in his stead, bind apprentices. Several states have also passed laws to repress duelling, by disqualifying from public office all the parties to any duels, and by requiring persons entering on office to take an oath that they have not been, and will not be, concerned in a duel.^a

The law officers are, an attorney-general for the general government, who receives 3,500 dollars for his salary, and 1,000 dollars for the salary of his clerk, and also attorneys for each of the districts and states, who are paid small salaries and settled fees for the business done by them. These law officers are efficient and zealous prosecutors in all cases of felony whatever, and in all misdemeanours that concern the public. Voluntary societies also take upon themselves the task of aiding the public prosecutors in repressing offenders, and the parties injured may likewise prosecute them. In some of the states no ex-officio informations can be exhibited to subject any person to imprisonment, or to ignominious punishment. The duties of law officers, however, seem to stand in the same undefined situation with those of the attorney-general in England and in the English colonies;^b but the expense of criminal prosecutions is borne chiefly by the public.

The police consists of ordinary constables and justices of peace; the latter having the power, upon emergencies, of summoning the posse comitatus to act as special constables. All the power of the constables, and most of that of the justices, resembles that with which the common and old statute law respecting public tranquillity invests the same authorities in England. For various local arrangements considerable authority is also given to select men; and the justices have civil jurisdiction, without a jury or strict forms of pleading, in cases under twenty dollars, with criminal jurisdiction in some of the states, also without a jury, in small thefts, and over light offences by young persons, who, however, are then only punishable by imprisonment for short periods of time. The people control all these functionaries, either directly by annual elections, or indirectly by electing the higher functionaries who appoint them.

The military power is vested in the government of the Union, not in the separate states, the president being commander-in-chief; but the right to have arms is not taken away from individuals; and each state bears the expense of many military equipments. The regular army is subject to laws passed by congress; and all free, able-bodied, white male citizens, between the ages of eighteen and forty-five, are bound to have a musket, or rifle, and proper accoutrements ready for service in the militia, of which the privates elect their captains and subalterns, and the latter their field-officers. In the militia there must be a proportionate number of horse and

^a Virginia Laws for 1830, sect. 3.

^b Journals of the Massachusetts Convention of 1820, pp. 211, 213, 258.

artillery. The time of service is limited to three months in the year; and to a due rotation of the individuals enrolled. The president of the United States may call them out at his discretion, in cases of invasion, or of imminent danger of invasion; and at the discretion of the legislature, or executive councils of the separate states, in cases of insurrection. Whenever, also, the laws are opposed or obstructed by combination too powerful to be suppressed by the ordinary course of judicial proceeding, or by the powers vested in the marshals (the sheriffs), the president may call out the militia; but he must, by proclamation, command the insurgents to retire peaceably to their homes, within a limited time; and the militia are not to be kept embodied in this case more than thirty days after congress shall meet. The soldier in the United States, as in England, is bound to obey only lawful commands; and he acts there, as here, on his own responsibility, not exclusively on that of his officer. The rash interference of soldiers in riots is more expressly guarded against in America than in England.

The subject of codes of law has obtained deep consideration in the United States. Although Mr. Bentham's views^c have not been adopted there, they have not failed to make a great impression; but the difficulty of it has prevented much more being accomplished than the accumulation of materials for the use of another generation. One individual, of well-deserved and high reputation, Mr. Edward Livingstone, has done great things for Louisiana on this head, in regard to the criminal law; and in civil jurisprudence the Code Napoleon has been adopted in that state with comparatively few alterations.^d By a law of 1829 the legislature of Louisiana appropriated "4,500 dollars to Mr. Livingstone, for services in compiling the criminal code and code of evidence, leaving the subject of further compensation open for future consideration."^e The early views of the leading statesmen in America on this subject are recorded by President Jefferson as follows:—"Whether we should undertake to reduce the common law, our own, and so much of the English statutes as we have adopted, to a text, is a question of transcendent difficulty. It was discussed at the first meeting of the committee of the revised code, in 1776, and decided in the negative.^f We met in January, 1777, to settle the plan of operation, and to distribute the work. The common law, and statutes to the 4th James I., when our separate legislature was established, were assigned to me; the British statutes, from that period to the present day, to Mr. Wythe; and the Virginia laws to Mr. Pendleton. . . . We were employed in this work to February, 1779, when we met and examined critically the several parts sentence by sentence, scrutinizing and amending, until we had agreed on the whole. We had brought so much of the common law as it was

^c Mr. Bentham's work on legislation has, however, been translated from the French by an American.

^d *American Jurist*, No. I, p. 32.

^e *Ibid.* No. III. p. 188.

^f *Jefferson's Correspondence*, vol. iv. p. 183.

thought necessary to alter, all the British statutes, and all the statutes of Virginia, which we thought should be retained, within the compass of 126 bills, making a printed folio of ninety pages. Some bills were passed, but the main body was not entered on by the legislature until after the general peace in 1785, when, by the unwearied exertions of Mr. Madison, in opposition to the endless quibbles, chicaneries, perversions, vexations, and delays of lawyers and demi-lawyers, most of the bills were passed by the legislature with little alteration."^g Of later years much more has been accomplished. In New York and in other states, many debates have been had, and valuable volumes have been published by authority, in order to simplify the law. In Pennsylvania, in 1830, three commissioners were appointed to collect into one act the different acts requiring consolidation; to divest such acts of all redundant phrases; to distribute the acts systematically; to omit all that were repealed, or repeated, or expired; to suggest to the legislature imperfections, with the means of correcting them: and the same commissioners were to report whether it would be expedient to introduce any, and if any, what change, in the forms or mode of proceeding in the administration of the laws.

It will be a proper conclusion to the foregoing views of American laws, intimately allied as they are to those of England, to notice the manner in which the ablest writers, and the greatest lawyers amongst these kindred^h foreigners, have expressed their respect for the first of English judges and jurists. The most important accounts of Sir Edward Coke and Lord Bacon will be found written by Americans;ⁱ the great legal fathers also of modern liberty, Lord Somers, Sir John Holt, and Lord Camden, have met with more practical and devoted homage in America than at home; and the just legal fame of Lord Eldon, Lord Stowell, and Lord Mansfield, incomparably the first of modern names in the law, has been no-where more fairly estimated, or more eloquently acknowledged, than by the greatest American lawyers;—lawyers, however, who, as citizens, were at the same time willing to put their lives at hazard in a noble opposition to the unfortunate views of Lord Mansfield, Lord Stowell, and Lord Eldon, on questions of civil policy. The leading principles of English law, and the great names in our jurisprudence, are familiar in America as "household words." The observations of Mr. Burke upon this subject are well known;^k and American biography since his time has produced a curious confirmation of the justice of Mr. Burke's testimony to the eagerness with which Americans, before the revolution, hailed the Commentaries of Sir William Blackstone. The author of the *Life of Otis*^l states, that

^g Jefferson's Correspondence, vol. i. p. 37.

^h This is not a mere figure of speech, as an American naturalized by act of parliament might perhaps acquire greater English capacities than any other foreigner.—*Sir Orlando Bridgman's Reports*, p. 633.

ⁱ North American Review.

^k Speech upon American Taxation.

^l *Tudor's Life of Otis*, p. 10.

this able and patriotic lawyer, in conversing with his brother on the subject of the study of the law, and speaking of the books written upon the science, and its modern improvements, said, that "Blackstone's Commentaries would have saved him seven years' labour poring over and delving in black letter."^m

^m The spirit of the best of their fathers has not been lost on modern American lawyers. In remarking upon the independence of the judges, Mr. Webster, of Massachusetts, with just discrimination observes, "I know not whether a greater improvement has been made in sound government, than to separate the judiciary from the executive and legislative branches, and to provide for the decision of private rights in a manner wholly uninfluenced by reasons of state, or considerations of party or policy. It is the glory of the British constitution to have led in the establishment of this most important principle. It did not exist in England before the revolution of 1688, and its introduction has seemed to give a new character to the tribunals. In matters of mere property, in causes of no political or public bearing, the judges, before this event, might perhaps be safely trusted; but in great questions concerning public liberty, or the rights of the subject, they were, in too many cases, not fit to be trusted at all. Who would now quote Scroggs, or Saunders, or Jeffries, on a question concerning the rights of the habeas corpus, or the right of suffrage, or the liberty of the press, or any other subject closely connected with political freedom? Yet, on all these subjects, the sentiments of the English judges since the revolution,—of Somers, and Holt, and Jekyl, and others,—are, in general, favourable to civil liberty, and deserve and receive great attention whenever referred to."—*Debates in the Massachusetts Convention of 1820*, p. 217.

Another testimony from an older tongue is more important. It has been attempted to pay a just tribute of applause to the important improvements made in the state of commercial laws by Mr. Justice Story of the supreme court of Washington, in his editions of Lord Tenterden's "Law of Shipping." Models for a better eulogy upon him, may be found in the approbation which that very learned judge has bestowed upon English lawyers. After making an original sketch of the earlier progress of our jurisprudence, he proceeds in the following words:—"It was reserved for Lord Hardwick, by his deep learning, his extensive researches, and his powerful genius, to combine the scattered fragments of equity into a scientific system; to define with a broader line the boundaries between common law and chancery; and to give vigour and certainty to the principles as well as to the jurisdiction of the latter. Henceforth, equity began to acquire the same exactness as the common law; and at this moment, there is scarcely a branch of its jurisprudence that is not reduced to method, and that does not, in the harmony of its parts, rival the best examples of the common law. Our own age has witnessed, in the labours of Lord Eldon, through a series of more than twenty-five volumes of reports, a diligence, sagacity, caution, and force of judgment, which have seldom been equalled, and can scarcely be surpassed; which have given dignity as well as finish to that curious moral machinery which, dealing in an artificial system, yet contrives to administer the most perfect of human inventions, the doctrines of conscience, *ex æquo et bono*."

Again,—“How few have read with becoming reverence and zeal, the decisions of that splendid jurist, the ornament, I will not say of his own age or country, but of all ages and of all countries; the intrepid supporter equally of neutral and belligerent rights; the pure and spotless magistrate of nations, who has administered the dictates of universal jurisprudence with so much dignity and discretion in the prize courts of England! Need I pronounce the name of Sir William Scott?” (afterwards Lord Stowell).

“There is another great name respecting whom it is difficult to speak in terms of moderate praise, and still more difficult to preserve silence. England and America, and the whole civilized world, lie under the deepest obligations to him: wherever commerce shall extend its social influences,—wherever justice shall be administered by enlightened and liberal rulers,—wherever contracts shall be expounded upon the eternal principles of right and wrong,—wherever moral delicacy and juridical refinement shall be infused into the municipal code, at once to persuade men to be honest, and to keep them so,—wherever the intercourse of mankind shall aim at something more elevated than that grovelling spirit of barter, in which meanness and avarice and fraud strive for the mastery over ignorance, credulity, and folly,—the name of Lord Mansfield will be held in reverence by the good and the wise, by the honest merchant, the enlightened lawyer, the just statesman, and the conscientious judge. The maxims of maritime jurisprudence which he engrafted into the stock

It is, indeed, a highly gratifying circumstance, that the lawyers of the United States cherish a disposition to extend the bounds of the science beyond domestic learning, and to improve their own jurisprudence by the study of that of other nations, ancient and modern. The effects of this excellent spirit cannot fail to be to relieve society more and more from the scourge of uncertainty to which all laws have hitherto been exposed; and hereafter to enable a well-informed people to collect a comparatively simple system from the multitude of entangled rules and statutes now everywhere prevalent. Although law reform is still in its infancy throughout the Union, materials are in the course of accumulation which must lead to great results. The repository of

of the common law are not the exclusive property of a single age or nation, but the common property of all times and all countries. They are built upon the most comprehensive principles and the most enlightened experience of mankind. He designed them to be of universal application, considering, as he himself has declared, the maritime law to be not the law of a particular country, but the general law of nations. And such under his administration it became, as his prophetic spirit, in citing a passage from the most eloquent and polished orator of antiquity, seems gently to insinuate: *Non erit alia lex Romæ, alia Athenis; alia nunc, alia posthac; sed, et apud omnes gentes et omni tempore, una eademque lex obtinebit.* Lord Mansfield was ambitious of this noble fame, and studied deeply, and diligently, and honestly, to acquire it. He surveyed the commercial law of the continent, drawing thence what was most just, useful, and rational; and left to the world, as the fruit of his researches, a collection of general principles, unexampled in extent, and unequalled in excellence. The law of insurance was almost created by him; and it would be difficult to find a single leading principle in the beautiful system that surrounds and protects the commerce of our times which may not be traced to the judgments of this surprising man. Of him it cannot be said, '*Stat magni nominis umbra.*' His character as a statesman and an orator, as the rival and the equal of Chatham and Camden, would immortalize him. But the proudest monument of his fame is in the volumes of Burrows and Cowper and Douglas, which, we may fondly hope, will endure as long as the language in which they are written shall continue to instruct mankind." An address delivered before the members of the Suffolk bar, at their anniversary, on the 4th of September, 1821, at Boston, by the Honourable Mr. Justice Story.—*American Jurist*, No. 1. p. 8.

A more recent tribute to England is perhaps even worthier of being recorded, as it boldly unites the best names of both countries.—"Let us imitate the example of illustrious predecessors; (says the writer,) of Coke, in his industry, who thanked God that he never gave his body to physic, his heart to cruelty, nor his hand to corruption; of Hale, the proudest because the purest name in English history, 'of unblemished integrity and uprightness in every character in life, of generous frankness and open sincerity in conversation, of unalterable adherence in all stations to the principles of civil and religious liberty, accompanied with a serious regard to true piety;' and, in the words of Baxter, 'that unwearied student, that solid philosopher, that famous lawyer, that pillar and basis of justice, who would not have done an unjust act for any worldly price or motive,—the ornament of His Majesty's government, and honour of England, the highest faculty of Westminster Hall, and pattern to all the reverend and honourable judges,—that godly, serious, and practical Christian, the lover of goodness and all good men, a lamenter of the clergy's selfishness and unfaithfulness and discord.' Let us imitate the example of Selden, Clarendon, Holt, Hardwick, Nottingham, Mansfield, Thurlow, Sir William Jones, and the host of worthies, the lights of Westminster Hall; and of our distinguished men in the profession who have done so much for themselves and the country; and dwell upon the recollections of the gifted jurists who aided in the cause of our revolution and in the establishment of our frame of government,—of Hawley, Otis, Adams, Quincy, Ellsworth, Hamilton, Jay, Wythe, Jefferson, Lee, Randolph, Henry, Parsons, Gore, Ames, Dexter, King: it was the men of this cast who in stormy periods girded on the armour, and subdued might to the empire of justice. They were of that popular cast, answering the description of James, who, when the twelve judges were brought before him, in the case of the Commendams, declared, 'that ever since his coming to the crown, the popular sort of lawyers had been the men that most affrontedly had trodden upon his prerogative.'"—*Mr. Willard's Address to the Worcester Bar, Massachusetts, 1829.*

the judgments of the numerous local courts daily improves the judges and the people; and the visibly increasing excellence of the American reports, although, like the independent states, but of recent creation, shews that legal learning is spreading everywhere in a degree perfectly new to mankind. The reports are the more valuable, as they contain the *written* decisions which it is the very general practice of the judges to deliver on important occasions. The establishment, also, of official reporters, such as Lord Bacon recommended in vain for Westminster Hall, is favourable to the greater exactness of the reports; and the freedom and activity of the law press, as well as of the press generally, which was wanting in Lord Bacon's time, will tend to check indolence, and to add to the efficiency of these reporters.

The increase of litigation is often urged as a consequence of the cheapness of law, and of the multiplicity of tribunals scattered over the United States. The existence of the fact may be doubted: the doing of justice is greatly increased, but not litigation. It is not easy to form an accurate and comparative estimate of the amount of business done in the courts, and out of the courts, by lawyers and judges in any two countries; but if the judges are more numerous in America than in England, it is a most important point in the comparison, that the practitioners of the law are fewer in number; and, by the union of the different branches of the practice in the same individuals, they are generally a more learned and more respectable class of men. In a work of good repute, the result of careful calculations is, that whilst in England and Wales there is one lawyer (barrister, conveyancer, special pleader, solicitor, attorney, advocate, or notary,) to every thousand persons, in the United States, the average is one to every seventeen hundred persons. It is probable that the good old practice of uniting the two branches of attorney and barrister in one person elevates the general character of lawyers, and lessens litigation.

Students^a generally attend at the offices of established practitioners, but law schools are increasing; "and," said Dr. Du Ponceau, in 1824, "the most exalted characters do not disdain to fill the professors' chairs. Until lately, the only institutions of this kind were two in Massachusetts, one in Connecticut, and one

^a The following rapid sketch of the tuition of an American lawyer, "Edward Jackson Lowell, a member of the Suffolk bar," in Massachusetts, is contained in an interesting notice of one who was lost too early to his country and friends. "Five years and a half spent in the college and law school of Harvard university, a winter attendance upon the lectures and private instruction of (the retired) Chancellor Kent; a year in a counsellor's office in Boston; two years spent in study and travel in Europe; and two years of professional seclusion and study, excepting the interruptions of sickness, fill out the short and simple outlines of his life. While in France, he took an instructor in the civil and French law; and, both in France and in England, he attended the courts and legislative assemblies, and paid great attention to the history, the theory, and the operations, of their political and legal institutions. He died at the age of twenty-five years, and almost at the very hour when he was to have performed his first act of professional duty, and after having lived a life, which, though undistinguished by public exertion, made it privately known exactly how he would have performed that duty."—*Jurisprudent*, No. 9. Boston, 1828.

in Philadelphia: there are now established, two in Kentucky. In the university of New York, the Hon. James Kent, during many years the distinguished chancellor of that state, and whose name and talents will long be venerated, took the chair of jurisprudence. At Baltimore, Professor Hoffman, and at Northampton, Judge Home, and Mr. Mills, a member of congress, lectured with success to considerable numbers of students."° Since the publication of Dr. Du Ponceau's book, law schools and law professorships have been established at various other places: of these, one professorship, founded by a distinguished lawyer, and filled by a distinguished judge, requires especial notice: Mr. Dane, one of the fathers of the Revolution, has dedicated the profits of his valuable Digest to a chair of jurisprudence at the university of Cambridge, in Massachusetts; and he rejoiced in the good fortune to be able to appoint Mr. Justice Story as his first professor. The professor's eulogy of his founder is singularly happy, in the application of Lord Hale's character of Rolle, the learned chief-justice of the English Commonwealth:—"He argued frequently and pertinently; his arguments were fitted to prove and evince, not for ostentation; plain, yet learned; short, if the nature of the business permitted, yet perspicuous; his words few, yet significant and weighty; his skill, judgment, and advice in points of law and pleading, were sound and excellent. In short, he was a person of great learning and experience in the common law, of profound judgment, singular prudence, great moderation, justice, and integrity."P Mr. Story himself, after securing the respect of one generation as a judge, like Chancellor Kent, merited the gratitude of another as their teacher. The character of what the American youth are learning by such means will be best understood by a special notice of this eminent professor's inaugural address. After expatiating, in the manner of Blackstone, upon the great importance of legal knowledge to the citizens at large, the discourse is solemnly addressed to those who study the law as a profession, and holds forth the highest motives to arduous application, with large and comprehensive views of the science, reminding the student that it is insufficient to be "the sharp and cunning pettifogger, a retailer of lawsuits, 'a canter about forms, and a caviller upon words,' described by Cicero. God forbid that any man, standing in the temple and presence of the law, should imagine that her ministers were called to such unworthy offices." The all-pervading and all-controlling influence of the administration of the laws upon the welfare of communities, and, most of all, of republics, is then dwelt upon with great power; and the members of the profession are reminded that they are the guardians and sentinels of the purity and integrity of its administration, in defence of which, against the popular attacks of the moment, they are bound to sacrifice, if needful, their own popularity, and should glory in the sacrifice. The advocate is also called upon

* The reader will remember the period to which these statements refer.

P The American Jurist, No. 4, 1829, p. 407.

to vindicate the laws from the attacks of the government itself. The discouragements and the long-enduring labours through which the path to eminence lies, are then portrayed to students; and they are cautioned against indulging "the belief, that fluency of speech, a kindling imagination, ready wit, graceful action, and steady self-confidence, will carry them through the struggles of the law."¹ In the wise spirit of Judge Story's address, Otis had a century before urged the necessity of various and deep learning to the American lawyer;² and, in 1760, the eloquent Patrick Henry, although an unlearned student, obtained admission to the bar of Virginia, upon proof of his extensive knowledge of the laws of nature and of nations, of the feudal system, and of general history.³ Eminent writers in the United States have fairly vindicated their countrymen from all reproach of neglecting the study or improvement of jurisprudence: by no people has so much been done in so short a time; and a long catalogue of their elementary writers, of their reporters, and of their laws, might be quoted to their great honour.

To these sources of legal and constitutional knowledge must be added the two remarkable facts, that about fifty millions of copies of newspapers are issued in the United States in the year, in which constitutional and legal reports and papers are published without limit. The local legislatures afford scope for discussion and deliberation to more than 3,500 members on the most important topics; and at least 30,000 verdicts of juries are said to be returned yearly in the civil and criminal courts—circumstances which show the extent to which the minds and passions of men must be exercised in the United States, where, as well as in the legislative assemblies, all transactions are conducted with great publicity. It was one of the fruits of the revolution of 1776 to open all the legislative assemblies to the public as hearers; previously, the sittings had been for the most part close. But so early as 1776, the house of assembly of Massachusetts, at the beginning of the great struggle, opened "a gallery for such as wished to hear the debates."⁴ Law reporting is also more and more provided for by the state governments. In 1831, the legislature of Illinois directed 150 copies of the reports of their supreme court to be bought by the public. In 1830, Alabama voted 800 dollars a year to the reporter of the supreme court; and the like occurs in most parts of the Union, in the best spirit of Lord Bacon's advice in England two centuries ago.

In America, as elsewhere, valuable law manuscripts exist, the careful publication of which would give certainty upon many points not likely otherwise to be rescued from the influence of doubt, and, worse—discretion. Such materials must abound in the United States, upon a particular class of cases, as interesting to them historically as to Great Britain legally. Until the revolution in 1776 frequent appeals were made from

¹ Tudor's Life of Otis, p. 10.

² Wirt's Life of Henry, p. 17.

³ Tudor's Life of Otis, p. 253.

⁴ Tudor's Life of Otis,

the colonies, on various subjects, by petition to the king. These petitions were heard regularly at the Cockpit; and, for the most part, the leading lawyers of England were the advocates employed in these causes. The judicious course of Lord Somers in such a case, from Boston, has been noticed; and Lord Mansfield is known to have had great practice there. The subjects being rarely interesting to the English bar, a very few reports of the arguments are published in our law books; but it is clear that the agents of the transatlantic parties sent home large details of every thing that passed; and, in desultory notices of Privy Council causes in American books, there is proof that some of these details are preserved, as in Belknap's and Hutchinson's Histories of Massachusetts, and in the collection of the Boston Historical Society; to which society there were lately sent the printed briefs and petitions in the very curious Privy Council appeal of "The Last of the Mohicans," an appeal which, in the fact of its having been seventy years before the English tribunal, furnishes a sufficiently clear illustration of one cause of the ruin of the native tribes. These Privy Council proceedings are important in the United States as matter of constitutional and legal history; but to the existing English colonies the precedents which some of them would furnish of wise decisions, and the warnings which might be derived from the manifest errors exhibited in others, would be of the highest value.

In New England there are extant also manuscript law cases, taken before the Revolution, by such a man as Josiah Quincy, whose short report, written from London, in 1775, of a speech of Lord Chatham, is one of the most precious remains we possess of that great man's oratory.

The manuscripts in England affecting America are numerous. One of Sir Matthew Hale's, on the law of colonies, contains the following very curious passage:—"Concerning the plantations of Virginia, New England, Bermuda, and other islands and continents towards the West Indies, and, also, our plantations in Africa and the East Indies, the course of their acquisition was, that the King issued a commission to seize them; thus Virginia and New England were seized in 4 Jac. I.; Greenland and the northern plantations in 1 Phil. and Mar. pat. 3; the Carribee islands by Warner; and so divers others Presently upon the acquiescence the English laws are not settled there, or at least only temporary, till a settlement is made; and therefore, we see there administration of justice and law much differing from the English laws; but the people carry with them those English liberties which are incident to their persons."^a

Another, respecting civil matters, is perhaps more curious, by containing one of the earliest suggestions for the settlement of the old colonies, as a means of humbling Spain, and of avenging the cause of the Elector Palatine, son-in-law to James I.

^a Lord Hale's *Prerogativa Regis*.—British Museum:—Hargrave MSS. No. 81. p. 64.

This manuscript is from the first Lord Fairfax, a well-known name in Virginia. It urges, by way of incentive to North American colonization, in the seventeenth century, that "in the glorious and happy days of Queen Elizabeth, frequent were the navigations of our worthy countrymen; every brave spirit was taken up with some action that deserves esteem;" concluding with the just boast,—“Let the same occasion be that was, and there will be found English blood in English veins still! The same that we received from our fathers, the same we will leave to our sons;”—a boast which those sons have, indeed, nobly vindicated.

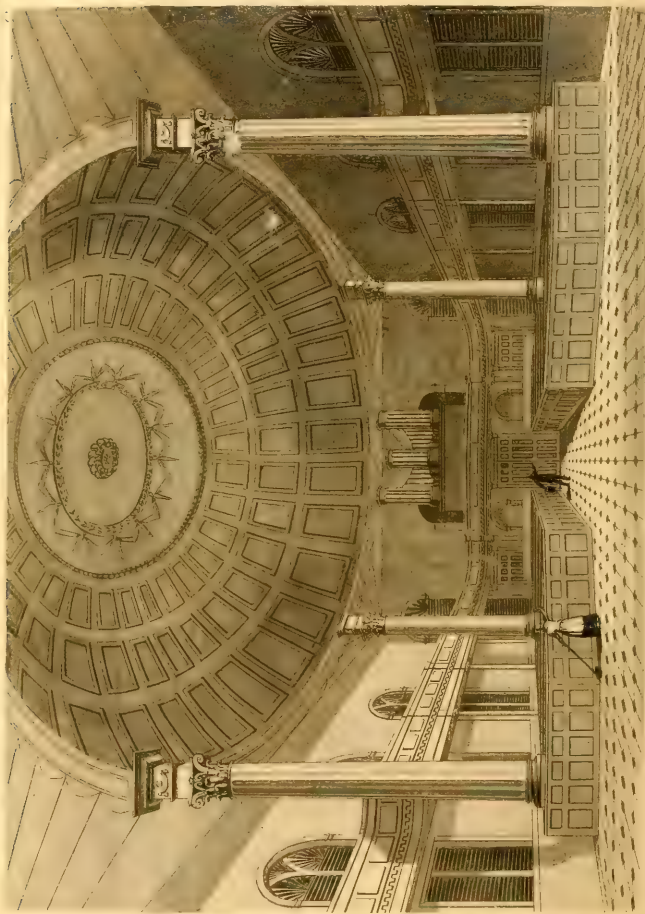
To the foregoing very incomplete sketch of the Constitution and jurisprudence of the United States, two concluding remarks remain to be added. The first is, that the essentially popular character of the Constitution has led a greater number of disinterested men, than under any other form of government, to direct their faculties calmly to the consideration of the best means of acting upon, of improving, and preserving it:—the second, that in consequence of the steady and widely extended watchfulness of the people over all that concerns them, popular affections and direct popular intervention have become safe influences in public affairs; and a degree of certainty, at little cost, is thereby secured to the public peace, heretofore unknown to human institutions. So deeply do we feel that these great results are attributable in a high degree to the character of the government under which they are found, that it is most unwillingly we abstain from selecting, out of its legal history, many additional excellencies of the constitution of the American Union.

CHAPTER II.

RELIGION.

As the state of human society in regard to religion is unquestionably the most important aspect in which it can be viewed, so the state and progress of religion can be no-where contemplated with more interest, or to greater advantage, than in the North American republic. We have not here to trace its influence upon savages, but upon civilized man; not upon uninformed and wandering tribes, the natives of the wild, but upon the population of enlightened states suddenly transplanted to its soil. We find this population, however, in a condition entirely new. Bringing with them the knowledge and the arts of civilized life, together with the principles of the civil, political, and religious economy of long-established kingdoms, they entered, not only upon the soil, but into the wild independence and unrestrained liberty of the savage. Released on the one hand from every thing which could have any tendency to render them either really or apparently religious, except the permanent force of truth and (under their circumstances) the diminishing power of habit, they may be considered as presenting a fair example of what habit and truth can effect, when separated from the artificial helps of legislative enactments, of an ennobled and wealthy priesthood, and of an imposing public ritual: released on the other hand from all which might tend to fetter the free exercise of the understanding, and permitted, not only to choose for themselves in the first instance, but to make whatever alterations their experience might suggest, they may be regarded as having, for the first time, put to the test of common sense and practical utility, the forms both of religious sentiment and religious worship so long established—and because established, revered—by the parent nations. The issue to which the question of a national church establishment has thus been brought is of great importance; and not less so is the aspect which the progress of religion has assumed, in the multiplication and extension of what has for some time been well known under the name of a revival.

It will, of course, be recollected by the reader, that the religious aspect of the United States is very far from being uniform. Different portions of the republic



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are characterized, not merely by less or greater degrees of religion, but by the prevalence of different religious sects. This has arisen principally from the manner in which the colonies, which are now cemented under the general title of the United States, were formed. Little or no progress was made in cultivating the transatlantic wilderness, until it became a refuge from persecution. It was natural that the first parties who went over on this ground should consist of persons of similar religious sentiments—of those, namely, which at that particular period exposed the holders of them to suffering; and when persons of a different creed became the victims of similar bigotry, in its capricious waywardness, they, in similar bodies, sought an asylum, not in the arms of those already banished, (where, indeed, it must be confessed, it would not then have been found,) but in some distant and unoccupied portion of the far-spreading shore. In this manner the states of Massachusetts, Rhode Island, Connecticut, New Hampshire, Maine, and Vermont, together forming what is familiarly known as New England, were colonized by the persecuted Puritans, and their religious condition bears the powerful impress of their origin to this day. Maryland was settled by Roman Catholics; Pennsylvania by the Quakers, (or Friends;) while episcopacy prevailed in Virginia, the Carolinas, and Georgia. Another circumstance contributing to diversify the religious aspect of the United States is, that several of the colonies comprehended in the republic were not of English origin. New York, New Jersey, and Delaware, were originally colonized by the Swedes and the Dutch; while Louisiana was long a possession of the French; and Florida is but recently acquired from Spain. The religious condition of these states bears distinct traces of their origin, in the existence, in the former, of Dutch and Lutheran churches, and in the prevalence of popery, superstition, and infidelity, in the latter. A further cause of want of uniformity in the religious aspect of the republic, is the rapidity with which the settlement of new lands is perpetually going forward. Every year the immigrant population is pressing onwards in the western wilderness, and at a much swifter pace than the means of religious instruction. As you retire from the more populous towns and the longer-settled districts, these means become more and more scanty, until the border settlers are withdrawn from every thing external by which a sense of religion might be maintained, and abandoned, until lately almost without an effort, to the prevalence of irreligion and vice.

Although our limits preclude us from attempting any thing like a history of religion in the United States, and equally from giving an extended account of particular sects, we have selected a few brief notices, which will give to our readers, we trust, a sufficient view of the existing religious bodies.

Not wishing to exhibit our own partialities, we begin with the Roman Catholics. A Jesuit priest accompanied the emigrants to Maryland in 1632; and from that date

till the period of the revolution, the American Catholics in Maryland and Virginia were constantly served by Jesuit missionaries, successively sent from England. The Rev. Dr. John Carrol having been elected by the clergy the first bishop, through a special indulgence granted them by the pope, Pius VI., a see was constituted, and the bishop elect consecrated in England, August 15, 1790. In 1810, the increase of the Romish communion had become so great in the United States, that it was judged best at Rome to erect the episcopate of Baltimore into a metropolitan or archiepiscopal see, and to establish four new suffragan dioceses; namely, Boston, New York, Philadelphia, and Bardstown in Kentucky. New Orleans, Charleston, Richmond, and Cincinnati, are now to be added to this list. It appears that the court of Rome cherishes the hope of acquiring large accessions to its spiritual dominion in the United States, more especially from the western territory. Regular missions are established over the whole country, and the following language is held respecting them: "The missions of America are of high importance to the church. The superabundant population of ancient Europe is flowing towards the United States. Each one arrives, not with his religion, but with his indifference. The greater part are disposed to embrace the doctrine, whatever it be, which is first preached to them. We must make haste; the moments are precious. America may one day become the centre of civilization; and shall truth or error establish there its empire? If the Protestant sects are beforehand with us, it will be difficult to destroy their influence."^a To these missions there was remitted from Europe in the year 1828, out of the funds of the Association for the Propagation of the Faith, nearly 5,000*l*. The methods adopted by the Catholics comprehend particularly establishments for education, from which they evidently expect much,^b the formation of religious houses of a benevolent character, and the building of churches, "whose pomp and splendour form so striking a contrast with the barrenness and nudity of Protestant worship."^c These efforts of the Romanists have been attended with a degree of success, which, though by no means extraordinary, has greatly encouraged the papal court, and has of late been regarded with anxiety by the more public-spirited part of other communions in the United States. The number of persons who have embraced Romanism does not appear to have been ascertained; but "*the population* belonging to this church," (a phrase of great latitude and vagueness,) at the highest of the various estimates which have been formed of it, has been computed at half a million.^d We see nothing in

^a Annales de l'Association de la Propagation de la Foi. Paris, 1829.

^b "These establishments do wonderful good: Catholics and Protestants are admitted indiscriminately; the latter, after having finished their education, return to the bosom of their families, full of esteem and veneration for their instructresses. They are ever ready to refute the calumnies which the jealousy of heretics loves to spread against the religious communities; and often, when they have no longer the opposition of their relations to fear, they embrace the Catholic religion."—*Ibid.* ^c *Ibid.*

^d Quarterly Journal of the American Education Society, vol. ii. p. 199.

this more than commensurate with the well-designed efforts and the devoted zeal which have been applied to the work, especially when combined with the extreme neglect with which the population of the western territory has been treated by other religionists, and the skilful adaptation of the papal system to the corrupt heart and proud imaginations of mankind. When American evangelical writers talk of contemplating the extension of popery with grief, we are ready to ask them why they did not view with equal grief the indifference and irreligion which were long before prevalent, and which were in themselves equally afflictive; and when they speak of it as a matter of humiliation that such a system should be capable of diffusing itself in such a country as theirs, we may suggest, as a still more proper topic of abasement, the supineness of those who, having light in their dwellings, have been pitiless of them that sat in darkness and the shadow of death. There is reason to believe, however, that the depth of this sleep is past; and we shall have occasion to notice, before we close this article, some recent exertions of great energy and promise in this direction.

The number of Episcopalians among the settlers in the United States was small; in Maryland and Virginia, however, many churches were early formed, and had legal establishments for their support. The organization of the episcopal church in America took place after the revolutionary war. The Rev. Samuel Seabury, D.D. of Connecticut, was consecrated at Aberdeen in Scotland, in November, 1784, by the Scotch bishops; Bishop White, of Pennsylvania, in 1787, by the Archbishop of Canterbury. Since that time, the number of Episcopalians in the republic has constantly increased, and they are now found in all the states. The colleges of Washington in Connecticut; Columbia in New York city; Geneva, New York; the University of Pennsylvania; William and Mary College, Virginia; and Kenyon, Ohio, are institutions under their control. Their dioceses are fifteen, bishops ten, and clergy five hundred and twenty-eight. American episcopacy, though it was derived from this country, has been so greatly modified by its separation from state patronage, and is so very unlike its still venerated parent, that we may perhaps gratify our readers, especially those of the same faith, by a brief sketch of its constitution. The highest spiritual capacity known is, of course, a bishop. Priests and deacons, being all the orders named in the Bible, are the only other orders known or used in America. The supreme authority is exercised by the general convention, which is composed of two bodies,—a house of bishops, and a house of lay delegates. Each diocese has a convention for the regulation of its own affairs. The general convention consists of the bishops, who form the house of bishops, and of laymen, who are sent as delegates from the state conventions. The object of this body is to promote harmony and uniformity of doctrine in the whole church. The state conventions contain the clergy of the diocese, and a lay delegation from each church. In both conventions, the clergy (or bishops, as the case may be,) and the laymen vote

separately, a majority of both being necessary to an ordinance. Clergymen are presented by their congregations, and bishops are elected by the conventions of the diocese, and are approved of by the house of bishops. There is no salary yet given to any bishop, though provision, to a reasonable amount, is making for that object; at present they are all rectors of churches. The oldest bishop for the time being is called the presiding bishop, though he enjoys no exclusive authority. The influence of republican institutions, even upon episcopacy, is here decidedly manifest. With the same name, this is obviously a very different thing from English episcopacy: the people uniformly choose their own ministers; the bishops are elected by a process in which, by their delegates, the laity have a voice; and no salaries are independent of a similar vote. It is well known that the Episcopalians of the United States look with no complacency on the golden fetters of their parent church; and it may be matter of some surprise how the admirers of the English hierarchy can delight themselves in the prosperity of a scion, which, while retaining an identity of denomination, has adopted what they must consider so dangerous and mischievous a principle, as the popular nomination to ecclesiastical offices and appropriation of ecclesiastical funds.

The first Presbyterians in America came from England, Scotland, and Ireland, about the year 1700, and settled in what is now a part of New Jersey and Delaware. The first presbytery was formed about 1706; the first synod, that of Philadelphia, in 1716; the general assembly in 1788. The essential features of Presbyterianism are the following:—1. The parity of its ministers. It recognizes but one order of ministers or presbyters, who receive their authority primarily from the Lord Jesus himself, and have power afterwards to confer this authority upon their successors. 2. The order and cooperation of ruling elders. They are properly the representatives of the people, chosen by them for the purpose of exercising government and discipline, in conjunction with pastors or ministers. 3. The union of its churches under courts of review and control. The general assembly of this church in the United States has under its care—synods, 20; presbyteries, 104; ministers, 1,800; churches, 2,250; communicants, 182,000. Of the ministers, forty are either presidents of, or professors in, theological or literary institutions, and fifteen foreign missionaries. In February, 1810, the Cumberland Presbytery was formed in Tennessee without any connexion with the Presbyterian church, principally because the synod of Kentucky refused to license ministers to preach the gospel without a classical education. This was at a period of considerable religious excitement, when the labours of clergymen were in great demand. They dissented also in some respects from the confession of faith of the general assembly, particularly in regard to the doctrines of reprobation, limited atonement, &c. At first there were but nine preachers in the connexion, four only of whom were ordained. They have now a synod, consisting of several presbyteries.

The Congregationalists, although principally abounding in New England, have a

number of churches scattered over other parts of the country. The fundamental principle of Congregationalism, and that from which the name is derived, is, that each congregation, assembly, or brotherhood of professed christians, meeting together for religious purposes in one place, is a complete church. It may commune with other churches, but it is a church of itself, and not by virtue of any connexion with another body of christians. It has the right, under Christ, to appoint its own officers, to discharge the duties of worship, to observe the instituted sacraments, and to exercise discipline upon its own members. The name *Independent*, which has sometimes been applied to these churches, has been objected to as inapplicable, because "they hold friendly mutual intercourse for various purposes," and are only independent as to authoritative control; but this, so far as we understand it, is the exact meaning of the word *Independent* as the denomination of a religious body, and the term seems to be just as applicable to the American Congregationalists as to the body who have long been designated by it in Britain. An account of the emigration of Mr. Robinson and his church, from whom the Congregationalists of the republic took their rise, will be found in a former part of our work.^e Formerly there were three officers known in these churches; pastors, ruling elders, and deacons. The intermediate class is now discontinued. The constitution of these churches, so far as there is any, is derived from ancient congregational writers on this subject, from the Cambridge platform of 1648 and the collateral discussions, from the Saybrook platform, and from general usage.^f The strictly congregational form of church constitution and government in this body has undergone some singular modifications, by the connexion, or rather the identification, in the origin and early proceedings of the colonies, of the church with the state. Migrating as a church, the settlers, not perhaps unnaturally, though clearly both unjustly and unwisely, conducted civil matters in the same capacity, and would allow none but church members to be elected to any office, or to possess the entire privileges of citizenship. In order to provide more completely for public worship, there was effected a division of the country and of the larger towns into parishes, a place of worship belonging to some Congregational Society being often considered as the parish church, and the residents in the parish having a joint right with the members of the church in the election of the minister. These things are obviously incongruous with the great principles of the congregational system, and must have proceeded from an oversight of them. They have produced the results which might have been expected. By a recent legal decision, in a case in which the parish and the church could not agree in their choice, the church has been merged in the parish, its distinct rights of property taken away, and even its separate existence denied. Loud, and as we think

^e Vol. i. p. 51.

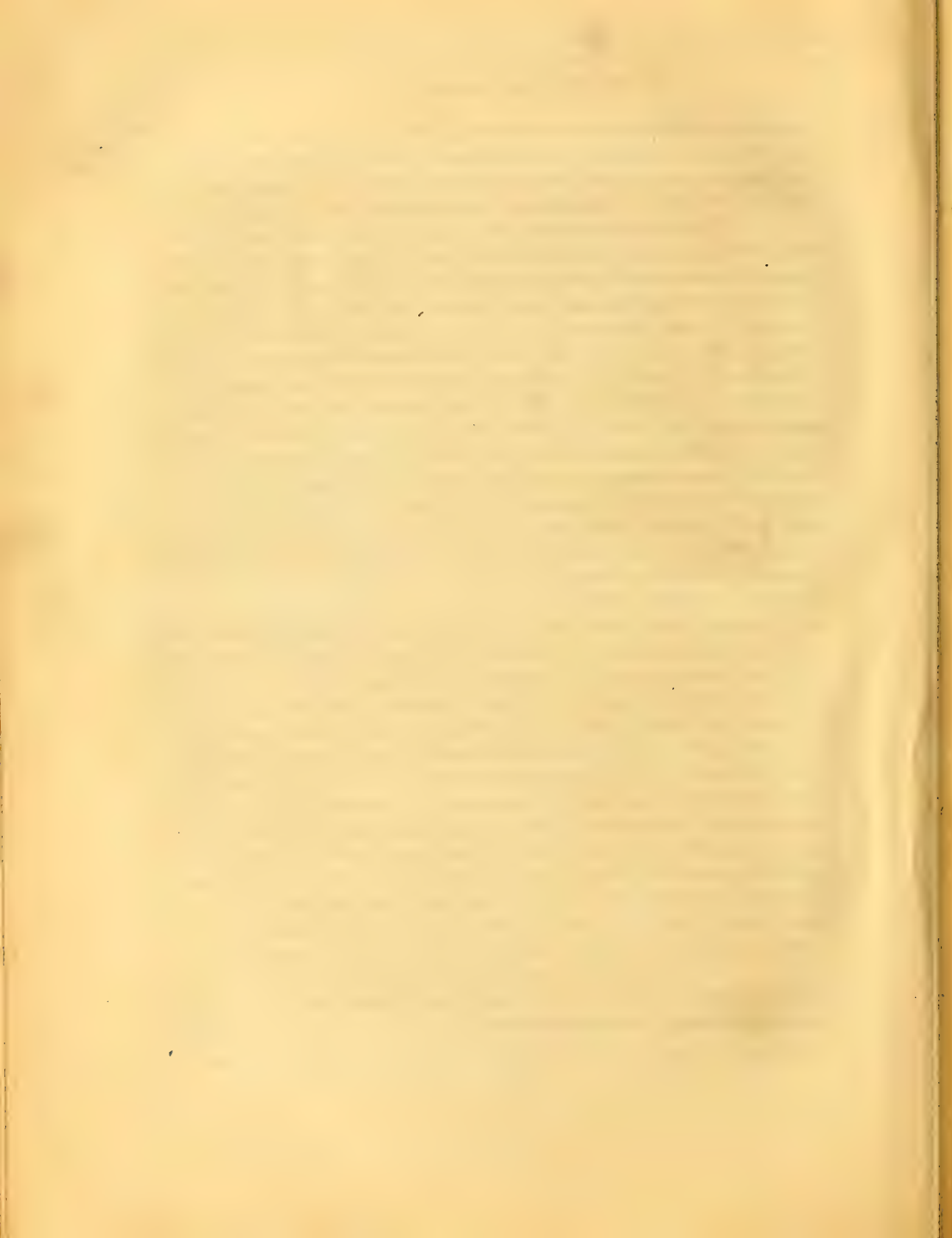
^f For an account of the Cambridge and Saybrook platforms, see vol. i. p. 130, et seq.

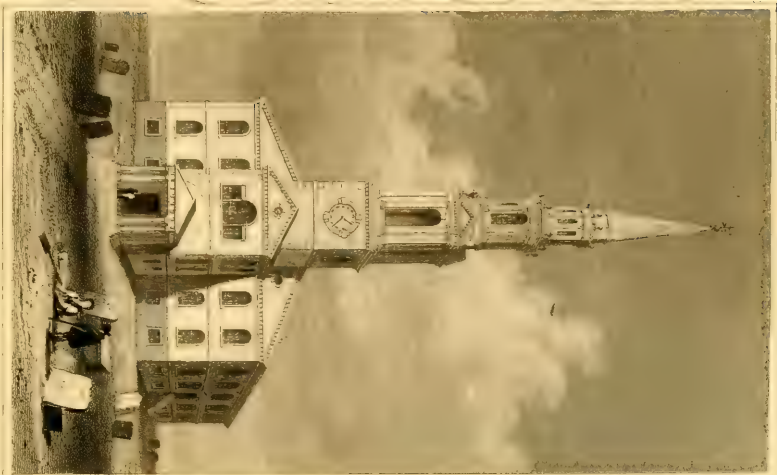
just complaint, is made by the Congregationalists against this decision, and we hope it will be cancelled; but should it be established and acted upon as law, the whole body may tremble for their very sanctuaries, and will have to learn, by costly and bitter experience, the evil of departing from their principles.⁵ There are about 1,000 Congregational ministers, 1,270 churches, and 140,000 communicants.

The Baptist churches in the United States are formed upon the same theological model as the Congregational, and differ only in baptizing by immersion on a profession of faith. The Calvinistic Baptists formed their first church at Providence, Rhode Island, in 1639, and are now found in all parts of the Union. They are a highly numerous and influential body, having 224 associations, 4,384 churches, 2,914 ministers, and 304,000 communicants. This is far, however, from being the whole body of American Baptists; there are others of "one faith and one baptism," appearing under subordinate distinctions: such are,—1. The Seventh-day Baptists. The first Sabbatarian church in America was formed in Newport, Rhode Island, in 1671, and they are confined principally to that state. A few years since they numbered about 1,000 communicants. In the United States there are now about 2,000 members, united together in an annual conference. 2. Emancipators, consisting of a number of ministers and churches in Kentucky, who, in 1805, took a decided stand against slavery, in principle and practice: their number is constantly increasing. 3. Free-communion Baptists, a name given to about thirty ministers and churches, who reside west of Albany, in the state of New York. The preceding are all of them Calvinistic. 4. Free-will Baptists: the number of ministers probably amounts to 300; churches, 400; communicants, 16,000. 5. Tunkers, or Dunkers, who have acquired this name from the manner in which they perform the rite of baptism, the word Tunker being a corruption of tumbler. They first appeared in America in 1719: they hold the doctrine of universal salvation, with some peculiar qualifications. They have, probably, forty or fifty churches, principally in the western states, and have great singularities. 6. Mennonites, of whom there were, in 1824, about 200 churches. 7. Six-principle Baptists, so called, from their belief that the custom of the imposition of hands, recognized in Heb. vi. 1, 2, is still binding as a prerequisite to church communion. As these two verses contain six distinct propositions, these persons have acquired the name of Six-principle Baptists, to distinguish them from others, sometimes called Five-principle. They reside mostly in Rhode Island and New York, and, in 1828, consisted of about twenty churches, and from 1,500 to 1,800 members.

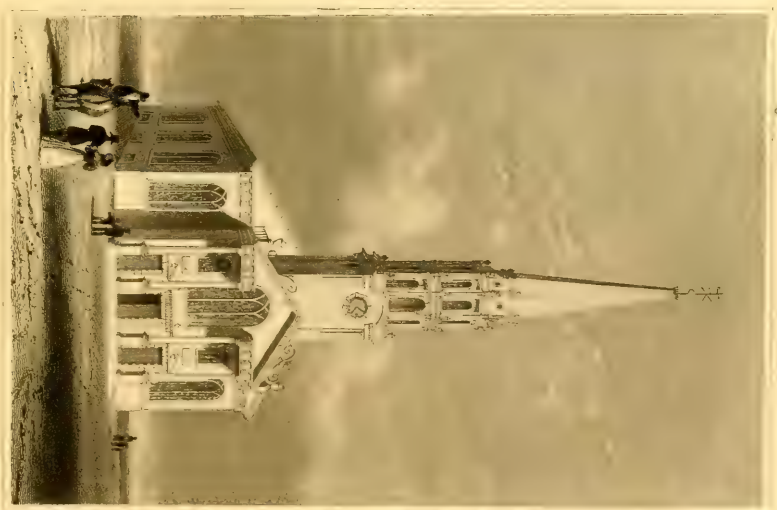
The Congregationalists and Baptists already mentioned require to be further designated as *orthodox*, in order to distinguish them from some of a similar constitution,

⁵ Spirit of the Pilgrims, vol. i. p. 114. It appears from this article, that *some* places of worship belonging to other denominations are likewise "connected with parishes."

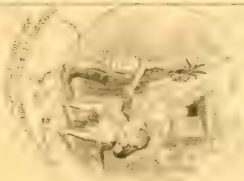
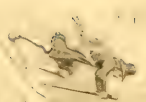




FIRST BAPTIST CHURCH AT PROVIDENCE



SECOND BAPTIST CHURCH AT PROVIDENCE



but of a different creed. Of this kind is a Baptist community calling themselves Christians, in defence of the name they have assumed quoting Acts xi. 26, xxvi. 28, and 1 Peter iv. 16, and regarding all others as the invention of men. The first society of this kind was formed in Portsmouth, New Hampshire, in 1803; they have spread extensively in all parts of the United States; they are anti-calvinistic and anti-trinitarian, and have not far from 1,000 congregations. A portion of the congregational churches, likewise, is now characterized by what may be designated English Unitarianism. The origin of this form of belief in the states is not to be traced to emigration, but to the decay of vital piety among the Congregationalists of New England, which is stated to have occurred about seventy years since. Under the cover of indifference, Unitarianism but too effectually insinuated itself among the members and into the pulpits of that body, with no small measure, as is alleged, of secrecy and artifice; some concealing their sentiments because they were unpopular, others because they felt indifferent about them; and others, more reflecting and philosophical, because they conceived that their extension would be most effectually promoted at that particular time by reserve and caution. The first Unitarian congregation formed in America was established in the king's chapel soon after the revolution, a case in which an open change was facilitated by the chapel becoming private property. As Unitarian sentiments became more general, they were gradually avowed with less reserve: yet the pulpits of many ministers who were supposed to have imbibed them gave no evidence of the fact, except by the systematic omission of distinct statements on discriminating points of doctrine. This at length brought upon them the charge of insincerity from their more orthodox brethren. The imputation was repelled with warmth, and the public were left in great doubt as to the precise sentiments of many of their pastors. Dr. Morse, the most prominent of those who publicly manifested their regret at the supposed defection of their brethren from the common faith, was accused of misrepresentation; and the most candid felt it almost impossible to arrive at the real state of things. At this time Dr. Morse happened to meet with Mr. Belsham's *Life of Lindsay*, in which he found his own representations borne out by letters and documents transmitted from Boston by the Unitarians themselves: these he put together in the form of a pamphlet, under the title of "*American Unitarianism; or a brief History of the Progress and Present State of the Unitarian Churches in America, compiled from Documents and Information communicated by the Rev. James Freeman, D.D. and William Wells, jun., Esq., of Boston, and from other Unitarian Gentlemen in this Country. By the Rev. T. Belsham, Essex-street, London. Extracted,*" &c. This pamphlet was eagerly read, and produced a great sensation. It disclosed the actual state of things, brought the question to issue, and ranged in opposite ranks those advocates of conflicting sentiments who had hitherto been

confusedly intermingled.^b The Unitarian party were not compelled to avow themselves, and to assume a distinct form in the United States, without loud complaints of illiberality against the orthodox Congregationalists; but, as it appears to us that this measure was right and imperative in its principle, so it is acknowledged on all hands to have been powerful in its influence, the orthodox churches having much increased since the commencement of this controversy, and Unitarianism being at a stand. The number of churches belonging to the Unitarians is not definitely known. Six or eight are found in Maine; four or five in New Hampshire; one in Vermont; one hundred and thirty or forty in Massachusetts; two in New York city; and a few in other places, south and west. It thus appears that they are by no means a large body, and that they are almost entirely confined to New England, their head-quarters being in Boston, where they have possession of seven or eight churches, and where, at one period, only one or two were filled by evangelical ministers. Striking and surprising as it may appear, that such a system should have had its birth in the part of the United States most eminent for knowledge and religion, and that it should have enthroned itself in the very centre of orthodox Congregationalism, (for such Boston has always been,) gaining possession of its pulpits, its revenues, and its oldest, best endowed, and most influential university,^c we conceive that there is nothing in these facts out of keeping, either with the character of Unitarianism, or the nature of man. The history of Unitarianism in our own country demonstrates it to be a system, delighting to insinuate itself into places it did not build, especially when attracted by funds which it is worth while to divert from their just appropriation; and proves equally, that nothing is so favourable to its progress as a religious state compounded of formality and indifference. Just so it has been in New England. The case of the Congregationalists there is but a repetition of that of the Presbyterians among ourselves: they stand, as a body, partly orthodox and partly Unitarian; and the strife on the part of the former will be, to induce, as vacancies may arise, the election of orthodox ministers. In this respect, if they could act as churches alone, their work would be much more easy and their efforts more successful: it is the combination of parishes with churches which has given Unitarians their chief advantage, and creates for the orthodox their chief difficulty.^k It is not the

^b Letters from North America, by Adam Hodson, vol. ii. p. 237.

Harvard University; now opposed by a flourishing institution at Andover.

^c 'Tis this controversy which has given rise to the legal appeal and decision to which we have referred in our account of the Congregational body. At a place called Dedham, the church having elected an orthodox minister, the parish elected a Unitarian; to which the church not submitting, the parish carried the matter before the supreme court, and the judge determined, not only that the election of the parish should stand against that of the church, but that all the property of the church should likewise be at the disposal of the parish, equally irrespectively of the will of that body. Enormous injustice, truly, and flagrant law! but a fit employment for Unitarian artifice, and a fit recompense for Congregational inconsistency.—*Spirit of the Pilgrims*, vol. i.

Congregational system, therefore, but a departure from it, which has suffered Unitarianism to enter; and in exact proportion to the degree in which its consistent operation can be restored, will be the prospect of expelling the intruder.

The first Methodist society in the United States was formed in the city of New York, in 1776, by some emigrants from Ireland. During the war of the revolution, all the preachers, except Mr. Asbury, returned to their native land. In 1784, Dr. Thomas Coke went to America, with powers to constitute the Methodist societies into a church: before this the preachers were considered only as laymen, and did not administer the ordinances. Dr. Coke ordained Mr. Asbury a bishop, and thus gave to the whole Methodist body an episcopal character, which it has ever since retained. There is something singular in the contrast which is thus created between the Methodists of America and those of Britain; and we feel inclined to ask whence it arose. How is it that bishops were not ordained on both sides of the Atlantic? Was it originally intended, and frustrated on this side of the water by feelings relating to the proud episcopacy of the national church, which had no existence in America, at least after the establishment of its independence? The clergy of the Methodist Episcopal church consist of bishops, presiding elders, elders, deacons, and an unordained order of licensed preachers. The ministry is divided into itinerant and local: the former are constantly engaged in preaching and pastoral labour under the direction of the bishops and conferences; the latter perform these offices only as opportunity offers. The highest authority of the Methodist Episcopal church is the general conference, which meets once in four years, and consists of delegates from the annual conferences, in the ratio of one delegate for every seven itinerant preachers. The annual conferences are seventeen in number, dividing the whole territory of the United States: these conferences consist of all the travelling preachers in the connexion. Their numbers, in 1829, were 437,000, with 1639 travelling preachers.

The Quakers, or Friends, are found principally in Pennsylvania.¹ Within a few years past there has been a serious schism among them: a part professing the doctrines of Unitarianism, and called Hicksites, from their leader, Elias Hicks; the other portion adhering to orthodox sentiments. It having been made a question which of them ought to be considered as seceding from the doctrines of the original sect, the yearly meeting of Friends in London, May 20, 1829, sent forth an epistle, containing a statement of their belief; from which it appears that they fully believe in the inspiration of the Scriptures, the supreme divinity of our Lord Jesus Christ, atonement by his sufferings and death, &c. The Hicksites, therefore, though not the

¹ The editors of the Quarterly Journal of the American Education Society tell us that the Quakers "agree with the Baptists in denying the validity of infant baptism."—Vol. ii. p. 187. Query: Do they allow the validity of adult baptism?

minority, are the seceders. Of 150,000 members of this society, 56,026 are Hicksites, and 28,904 are orthodox; the others are not known.—The Dutch reformed church was the established church in the state of New York until it was surrendered to the English. The church was dependent for the ordination of its ministers, &c., on the classis of Amsterdam, in Holland, till 1757, when the first classis was formed in America. Its government is committed to consistories, classes, and synods.—Some members of the German reformed church were among the early settlers in Pennsylvania: they are descended from the reformed or Calvinistic church in Germany, and remained in a scattered state till 1746, when the Rev. Michael Schlatter, who was sent from Europe for the purpose, collected them together. They are found principally in Pennsylvania; but there are a few in Maryland, Virginia, Ohio, and other states. The following may be given as a general estimate of the condition of this synod, including that of Ohio:—classes, eight; ordained ministers, 120; congregations, 500.—Some persons of the evangelical Lutheran church settled in Pennsylvania and the adjoining states on their arrival in America, and were for a considerable time supplied with ministers from Germany, some of whom were eminent men: they are now found in Pennsylvania, New York, North Carolina, Maryland, and other states. The Augsburg Confession, consisting of twenty-one articles, is the acknowledged standard of faith for the Lutherans. Among the American Lutherans are three judicatories:—1, the vestry of the congregation; 2, the district conference; 3, the general synod, from which there is no appeal. The general synod contained, in 1828, about 200 ministers, and 800 congregations.—The principal settlements of the United Brethren are in Pennsylvania and North Carolina; their congregations, in 1828, were twenty-three; communicants, 2,000; members, 6,000.—In the United States, there are probably about 300 societies, and 150 preachers of the Universalist persuasion: a general convention is annually holden, in which the several societies in New England, and some from other states, are represented.—The Swedenborgians are organized into a general convention, which meets annually: the eleventh meeting was held in Boston, in August, 1829; it consists of pastors, or teachers, and lay delegates.—The population of the Shakers, whose worship consists in religious dancing, was, in 1828, 5,400, in sixteen societies, and with forty-five preachers.

Our readers cannot fail to have observed, that, in the preceding account of the religious bodies existing in the United States, we have made no mention of a national church, or a state religion. There is, in truth, no such thing in the republic. Religion is scrupulously dis severed from the state, and as much from its patronage as from its control. The general government is prohibited by a fundamental article of the union from making any laws relating to religion, a right which the separate states have reserved to themselves; and they have determined, we believe unanimously, not to use it. The states, indeed, allot portions of land in new settlements for the support of

schools or divine worship, but they leave the appropriation of the grant to the vote of the inhabitants, without preference being shown by the legislature to any sect. If any more religious legislation than this exists, it is only in the laws by which some of the states prescribe qualifications for office; but these are, we believe, universally a dead letter. We do not consider it as an exception to this rule, that acting ministers of the gospel are, by law, in some states, not eligible to the legislature, or to the office of governor: where no such law exists, the principle, we are informed, is equally held and acted upon, that the union of civil and religious duties in the same person is inexpedient,—a point on which Mr. Cooper states “the opinions of the whole nation” are agreed. The opinion of the Americans in this respect is the more worthy of regard, because it is not the offspring of theory, but the result of experience. In many cases, and in some almost inevitably, the early magistrates of the colonies were ministers. Here, therefore, the utility of a clerical magistracy has been put to a practical test, and the decision of experimental wisdom is against it. Truly happy should we be to see a similar division between civil and sacred duties among ourselves.

We were saying, however, that, in the United States, religion is not established by law: so far as the government is concerned, every man is left entirely free to be of any religion or none, without any forfeiture of any civil right; and religious people are permitted to propagate every man his system, to whatever extent they please, alike without patronage and without resistance. This feature in the religious aspect of the republic has been regarded with considerable interest, and has become the subject of much discussion. Those who yield themselves to the imagination that a nation without a state religion is a nation of atheists, “a nation without a God,” have naturally deemed it a horrible enormity; those who conceive religion to be the only foundation of civil government, have not less naturally apprehended from it the irruption of anarchy; while those who identify the existence and spread of religion with the apparatus and wealth of an establishment, have, with equal reason, trembled for the ark of God. There are others, on the contrary, and we place ourselves in this class, who deem the existing state of things in the republic right in its principle, and rejoice to believe, that it has been, and will be, beneficial in its results.

It should be recollected in the outset of this discussion, that the separation of religion from the state in the North American republic has not arisen from the original structure of the colonies, or from the principles or designs of the first settlers. As the colonists went out for the most part as religious bodies, so they were almost universally impregnated with a passion for making religion the basis of the state, or of putting the state under the government of religion,—the reigning passion of the age, from which even persecution had not purified them.^m Hence, almost every-

^m Ample proofs of this may be found in the first volume of this work, p. 61, et seq.

where, one of the first proceedings was to establish religion by a fundamental law; and thus Romanism was established in Maryland, Episcopacy in Virginia, and, with grievous inconsistency, Congregationalism in New England. If in these regions religion is not now established by law, it is because establishments were found not to be useful, and for no other reason. Here is no mere theory brought forward and put into action, but, on the contrary, the exclusive result of experience. It is, moreover, not the experience of states in which an unestablished religion was instituted from the commencement, but of states in which establishments were first tried, and in which they were loved, and clung to with almost infinite tenacity. They were abandoned gradually, only as the necessity of circumstances and the light of experience dictated, and only as it was demonstrated that they did more harm than good. Here, therefore, we have the system of ecclesiastical establishments put to the most critical and satisfactory test, for such that of experience confessedly is. There is proverbially nothing crude, nothing rash, nothing delusive, in the lessons of this teacher, who is withal so effectual that she is said to teach fools, at least if they will ever learn. To this it may be added, that no trial of the system of state religions can be more advantageous for the advocates of establishments than that to which it has been subjected in the United States; and though it is far less favourable for the principles of Congregationalism than a fair trial of their value might demand, yet we are content. It is so much the more satisfactory if the result be on our side.

The practice of connecting the more ample or more restricted enjoyment of social privileges with a particular religious profession, which some of the colonies at first rigorously enforced, was soon found incompatible with their secular welfare. Persons aggrieved in this method could so easily remove themselves, either into another territory, or into the unsettled wilderness, that such a policy had for the most part no other effect than that of banishing valuable residents, and this at a time when it was of the utmost importance to multiply them. To the necessity of encouraging population we are indebted for the first instance of a government in this respect entirely equal, that of Maryland, into which, although it was colonized by Roman Catholics, and although Romanism was made the religion of the state, persons of all religious persuasions were welcomed upon equal terms as to civil rights, while bigotry was driving Presbyterians from the south, and Episcopalians from the north, to cultivate the lands, to augment the resources, and to reward the liberality, of a wiser state. In other instances, the near equality between the parties inflicting and those suffering the grievance contributed to the promptness of its cure. During their infancy, the colonies received such numerous accessions of persons not of the religious persuasion of the first settlers, and these often became of such special value and indispensable importance to the colonies themselves, that when they complained, their voice was necessarily heard. The reigning church became merged in the general

population ; and the equalization of civil rights became too general and imperative a demand to be refused. Its refusal, had it been possible, would have been not merely folly, but suicide.

The interference of the state with religion was found by no means conducive to the prosperity of religion. Those who settled in the transatlantic wilderness not unnaturally partook of the boldness and freedom of the wilderness itself ; and religionists of the same sect assumed no inconsiderable diversities. This was the case at least in New England, where, in consequence of it, an attempt was made to introduce a uniformity of worship, by a meeting of delegates under the sanction of the government. From this body issued the ecclesiastical constitution called the Saybrook Platform. It was approved by the existing legislature ; but what then ? It caused great discontent among the people, and it was not adopted in general practice. Resolved to try their hands again at this hopeless work, another meeting was held at Cambridge, and a second "platform," or code of ecclesiastical laws, was promulgated. The result is, that the churches which these legislative enactments were to regulate have, to the present day, no uniform constitution at all ; but each has adopted which of the laws it pleased, and the others remain a dead letter. It was found impracticable to enforce them, without inflicting evils far more than commensurate with the benefit ; and experience thus taught these meddling legislators and divines that uniformity of worship, if it be any benefit at all, which may well be doubted, is too dearly purchased by animosity and oppression.

Equally adverse to the interests of true godliness have been found the secular endowment and nomination of the ministers of religion. In no section of the republic was this system more deeply rooted, or more fondly clung to, than in Virginia, where Episcopacy had been established as the state religion from the first. After it had been abandoned everywhere else it was acted upon here, conjoined with a legal prohibition of a different worship. According to the wisdom of some persons in the old world, Virginia, under this treatment, ought to have been a religious paradise : unhappily, however, it was a religious desert, the ecclesiastical revenues of which were absorbed by a tribe of irreligious clergymen, and the people abandoned to neglect and impiety, while neighbouring states were enjoying the benefits of a disinterested and devoted ministry. The consequence was, that the common sense of the population dictated a petition to the state for the abolition of the religious establishment, and the legislature had wisdom enough to comply with it.

Sound wisdom and great liberality were long thought to be embodied in that act of some American legislatures, by which all persons were compelled to pay a rate proportioned to their property in support of religion generally, but were allowed to select the denomination to which it should be applied. Even this, it seems, does more harm than good ; and the last fragment of that system of secular interference or support on behalf of religion, which has been contemplated among ourselves with

such profound veneration, and which has so long been identified in imagination with the existence of religion itself, is probably doomed speedily to follow the fate of the structure of which it formed a part.

What then is the fact? Has religion perished in the ruins of its secular supports? and have the rash hands, so unkindly laid on religious platforms, fallen with a kindred violence on piety herself, whose sacred person they were intended to enthrone? It is an incontestable fact that nothing like this has occurred. Not only have these successive, and, in the eyes of some persons, these alarming changes, been made by those who wished religion, not harm, but good; but religion has actually survived this perilous treatment, and now appears in a state of no ordinary vigour and advancement. No-where has vital christianity suffered any injury by it: although she has had to grapple with the wickedness of man's heart in successive generations, and to sustain the assault where circumstances have given an extraordinary and almost unprecedented license and power to evil propensities: and although, while her dominion was yet young, and might have been supposed to be feeble, she had to contend with the mighty champions of infidelity, whose writings were poured like a flood into the bosom of the republic from revolutionary France, with a boastful confidence of success, she has nobly maintained her ground. Where religion ever flourished, it flourishes still, except where the baneful influence of religious establishments, or of practices partaking of the nature and principles of establishments, have enfeebled her energy. To such a cause exclusively, we conceive, must be referred the generation of Unitarianism in Massachusetts, together with the state of apathy by which it was preceded; results which the parochial division and the religious tax undoubtedly facilitated, and which the removal of these vaunted "aids" to piety will probably, not only check, but ultimately leave to perish.

To say that religion has maintained its ground in the United States, however, is far too little. It has been continually and greatly on the increase. Voluntary zeal, without the lure of secular emolument, has extended the preaching of the gospel through a very large portion of that immense territory; and everywhere with a measure of success proportionate to the activity employed. Let our readers but refer to the hundreds of thousands of communicants comprised in the religious bodies of unexceptionable character already described, recollecting that they are gathered from all parts of the Union; and, making a reasonable allowance for children and others, among whom, as usual, these persons of piety may be scattered, let them say whether these fruits of a few years' labour are not tolerably creditable to a religious system without that indispensable help, an establishment." It may add to the

"Whatever may be the actual state of religion in this country, I am quite satisfied that it is on the advance. There may be many local exceptions, but my inquiries and observations in every part of my route have led me to a confident conclusion as to the general fact?"—*Hodgson*. No one of

distinctness of the fact, if we mention the annual increase of some of the principal denominations :—the Presbyterian official reports for 1831 exhibit a clear increase of nearly 20,000 communicants during the year; the Congregationalists have had an equal number of accessions; and the Baptist denomination, as far as can be ascertained, experienced an increase of about 10,000 members during the same period.

But, perhaps the religion thus disseminated is of a spurious and unsatisfactory kind; perhaps, without the pressure of ecclesiastical authority in matters of faith, religious excitement may have run wild, and generated forms of superstition and error, fantastic beyond all former example. Open as the bosom of the states has been to the reception and unshackled utterance of all diversities of opinion from all quarters of the world, it could have been no matter of surprise if this had been the case; but while some of the numerous sects are certainly singular enough, and some may, perhaps, be peculiar to the republic, its condition in this respect presents nothing at all extraordinary.—It is well known that sects do not exist only in America. Their number on that side of the Atlantic does not appear to exceed those which exist in our own country, and they are far fewer than those which have been generated in the bosom of the Romish church, and cloaked in the mantle of her infallibility. For nearly the whole of its diversities the Union is indebted to other countries; and if in any case a vagary of religious enthusiasm has shown itself in America to which Europe is a stranger, how many forms of fanaticism exist on this side of the Atlantic which have taken no root on the other! Besides, sects of great peculiarity are invariably small and insignificant. The great masses in America, as in Europe, and more especially as in England, are the Roman Catholics, Episcopalians, Congregationalists or Independents, Baptists, Methodists, Unitarians, &c. Freedom of thought and discussion, though it has been highly advantageous to the science of theology, has given birth to no new forms of religious belief; while the pillars of the moral and religious system stand but the more firmly amidst the deep convictions of the mind, for the shrewd and fearless investigation to which they have been subjected; and truth and error are but repeating the same phrases with which the old world has for ages been familiar.—With some exceptions, of which it is impossible to speak without mingled censure and regret, there is no departure from the sobriety and sound judgment by which the ministrations of religion, and the conduct of its professors, should

“No one of reflection and candour can fail to be convinced, that truth and righteousness do, to a very important extent, prevail; and that those principles are in a state of increasing progress, and develope much.”—*Duncan*.

“I found more places of worship in the large towns of America than in similar towns in Britain; and much genuine piety among the Presbyterians, the Congregationalists, the evangelical Episcopalians, the Methodists, and the Baptists; and, as far as my journeying extended, I observed a cheering exhibition of Christian progress; as in England, all denominations of real Christians are increasing, and all are growing better.”—*Ward, of Serampore*.

unquestionably be characterized. To these observations it may be added, we believe with indubitable truth, that, in some places, if not in all, personal piety is more decided and vigorous than among ourselves: we mean, that persons who are religious are more manifestly so, and that their religion imparts more of its character to their converse and general deportment; so that among professors there is a tone and atmosphere of piety of a more elevated and decided kind. In this connexion we ought to notice, likewise, those remarkable periods which are now so familiarly known on both sides of the Atlantic as revivals of religion, during which conversions of ungodly men are multiplied to an extent, and with a rapidity, in modern days altogether unparalleled.

In reference to the influence of religious establishments, it is not a little remarkable how the very systems which have been accustomed to them, and have for the most part been identified with them elsewhere, thrive in America without them. Both the Roman Catholics and the English Episcopalians are in a state of vigorous action and prosperity, which, upon the supposition of secular support being of any great consequence, is altogether inexplicable. While they were established they were feeble; when their secular props were broken from under them they began to prosper. They are now associations of an exclusively voluntary character, and have neither impulses nor resources but such as individual sentiment may afford; and yet they are marching through the length and breadth of the American Union, diffusing and establishing an influence which the secular arm could never have acquired for them. We entertain a full conviction, that now these bodies have breathed the air of freedom, and felt its inspiring energy, neither of them would wish to receive the gaudy trappings and oppressive patronage of a state establishment: and that such a step, if it were practicable, would speedily reduce them to a state of torpor and decay.

We have looked with some care at the topics which have been adduced on the contrary side of the argument to that which we have taken; and we may be expected, perhaps, to take some notice of them in passing. Some writers speak of the value of "national religion as distinguished from personal religion;" and, from certain forms of phraseology in state documents, augur the stability or the ruin of empires. We wish these gentlemen would be at the pains to acquire a distinct notion of religion itself, and then they would see in a moment that it cannot be otherwise than personal, and that their notion of "national religion" is one of the merest fictions ever imposed upon the human mind. A nation can in no other sense be religious or irreligious than as a greater or less proportion of the individuals who compose it are so. As for the whim of prophesying that the American Union will some time be violated, because religious phrases were not incorporated in the constituent legislative act, it is purely ridiculous. Writers who contend that religion is the only basis of government, forget how many governments have existed and prospered without being founded upon any

religion but a false one, the efficacy of which we suppose the advocates for the excellency of the true will not very strenuously maintain. To us it is obvious, that, while religion undoubtedly tends to promote the welfare of a nation, by causing the duties of social and public life to be better understood and fulfilled, the principles on which the existence and prosperity of nations are founded are not those of religion, but of mutual interest; principles which it does not require christianity either to understand or to follow. To quote the French revolution as an example of a throne destroyed by the overthrow of religion, is quite in character for the advocates of priestcraft and of despotism; but we marvel at such language being held by Americans. The feelings of the people, it is true, were wrought to desperation by a set of designing infidels: but they were wrought upon by an appeal to the oppression which, alike from the court and the church, they had endured; and it was to avenge these social wrongs that they lifted themselves up against the powers which had inflicted them. They imbibed the poison of infidelity; but to say that they destroyed religion is absurd, for in all that their fury overwhelmed there was no religion to destroy. They suffered a period of anarchy and bloodshed, not because they had cast off religion, for none had previously existed; but because they yielded themselves to the frenzy of a selfish ambition. If they have subsequently been more tranquil, religion has had nothing to do with it; if they are yet restless, it is not for want of religion, but of a due regard to the principles of mutual interest. Without these, the government of an intelligent community never can be stable, as with them it can be in no considerable peril; and if the American Union observes them, without making any pretension to the prophetic gift, history and common sense assure us that long will be her prosperity.

It has been alleged, as an evil resulting from the absence of a state or national religion, that it allows persons to be of no religion at all; a permission of which it appears that no inconsiderable number on the western side of the Atlantic have availed themselves. Now, without questioning in the first instance the *power* of the state in this respect, we may ask, why the right of being of no religion should be denied by any government to its subjects? Is not this a question lying exclusively between man and his Maker, and to be settled on moral considerations, entirely apart from authoritative human interference? But suppose the state sets out on the quixotic errand of making christians of its subjects by wholesale, what can it do? Nothing but impose a ceremony and a name, while all the principles of character are left unchanged. If, therefore, the United States were to pass a law that all persons who did not choose to identify themselves with any minor religious sect, should be considered as belonging to some one henceforth to be made national, what would result, but that the present avowedly irreligious population would be compelled to assume a disguise and play the hypocrite, without having one particle more of religion than

they had before? We ask any man of common sense to say whether there would be any advantage in this; and whether it is not better that persons who will be irreligious, as vast numbers will, and perhaps equal numbers whether there be a state religion or not, should appear to be so, rather than be screened alike from knowledge, rebuke, and conviction, by an inappropriate name? It is easily intelligible, that the absence of a national religion in the republic should be connected with the absence of that habit of religious forms which, in other countries, gives a semblance of religion to society at large, and, by allowing irreligious character to show itself with greater distinctness and freedom, should tend to the diminution and ultimate annihilation of that large class of persons, who avail themselves of decent forms to conceal sceptical opinions, and an irreligious or perhaps a profligate life. And this we conceive to be the whole of the case in the North American republic. We see no proof that the population is more wicked there than in countries where a national religion, as it is called, is maintained; but there being no bounty put upon the observance of religious forms, and little penalty in public opinion attached to the neglect of them, the wicked are perhaps somewhat more openly and more freely wicked; and instead of extenuating their wickedness by saying, as here, that they belong to the church, they avow, what is equally the fact in both cases, that they are of no religion at all. So far from esteeming this an evil, we consider it a benefit. All experience shows that the method of disguising wicked men under the name of christians has done little towards the repression of vice, while it has done much to dishonour the profession, to obstruct the progress, and to paralyze the power of christianity. In the United States every man may be judged of "by his fruits;" and the ungodly part of the population, instead of being claimed in their sins as good members of the national church, lie open, as acknowledged sinners, to the instruction, reproof, and persuasion, of all who may take pity on their souls. This, if we mistake not, ranks high among the very reasons why religion spreads more rapidly in that country than in any other in the world. Before we leave this topic we may add, that we scarcely know how to suppress a smile when we find a respectable writer in America,^o eagerly quoted by high churchmen in England, speaking of the class of persons above referred to, those of "no religion," with horror, as "unbaptized infidels," and that unbaptized infidels are "the most atrocious and remorseless banditti that infest and desolate human society." That the vast territory of the republic is infested with "atrocious banditti" to a lamentable extent may possibly be true enough, as well as that it contains no small number of "infidels;" but Mr. Bristed's doctrine is, not merely that the infidels and the robbers are actually "unbaptized," but that it is the want of baptism which has caused the mischief! If it will be any comfort to this gentleman,

^o Mr. Bristed, "America and her Resources," p. 394.

we can assure him that his wonder-working rite has done very little in the Old World to prevent either infidelity or murder; and if he will take the pains to make the inquiry, we think he will find fewer of the American banditti and infidels "unbaptized" than he may have been inclined to suppose.

Another evil alleged to arise from the want of a national religious establishment in the United States, is the destitute condition of the new settlements. Now it is an unquestionable fact, that the border settlements in the western country are, to a very lamentable extent, characterized by prevalent irreligion, and unprovided with means of religious instruction. In many cases, a remedy for these evils is not desired; and when it is, the combined and only adequate exertion of the scattered population for this end, is often obstructed by sectarian attachments. We do not wonder that the idea of government dividing such districts into parishes, and appointing a minister to each, with a salary from the public purse, should occur to the friends of establishments in such a case as this: it accords with their habits of thinking, and it is perhaps plausible in itself; but it is only plausible. The nomination of religious instructors by the state has never been found to secure a faithful and devoted ministry; and to try the experiment again on the Ohio or the Mississippi, would only be to renew disappointments which have already been sufficiently plentiful, both in the Old World and the New. Besides, in this case, one of several coexistent and rival sects must be adopted and patronized by the state, a step which has always been found to inflame animosity rather than to allay it, and which would soon add to the evils of the border settlements, already sufficiently great, the worse mischief of party feuds. It is remarkable, indeed, that one of the most strenuous advocates of state support for religion,^p while loudly calling for a parochial provision in the new country, acknowledges its inutility in the old. Speaking of Massachusetts, where the desired method has had the longest and the fairest trial, he says, "Even here, we are beginning to feel the evils arising from division, and to feel them severely:—your parishes are crumbling into ruins,—party is arrayed against party,—to settle a minister becomes impracticable." Why, therefore, should an apparatus be set up elsewhere, which, in the most favourable circumstances, has produced such unsatisfactory results?

While we are convinced, however, that no ultimate or permanent good could arise to these destitute regions from the interference of the state, we must add that they have a strong and imperative claim upon the friends of religion in the more favoured parts of the Union. This is the source from whence their help should be derived. They present an appropriate sphere for operations of a truly missionary character, and can be effectually benefited only by missionary zeal. Considering the rapid population and the growing influence of the western states, no religious object should be

^p Dr. Jarvis, as quoted by Mr. Hodgson, "Letters from North America," vol. ii. p. 224.

deemed by American christians of equal importance with the diffusion of vital religion throughout their whole extent. There can be no doubt of their competency to the task; and if it is painful to see how much in past years it has been overlooked, it is matter of joy to know that it has recently been entered upon in a spirit of great promise. Besides the labours of the American Home Missionary Society, which are not inconsiderable, a vigorous effort of Sunday-school instruction has been made by several thousand teachers, who have pledged themselves to go through the whole of the great central valley, and are still engaged in the accomplishment of their purpose. Those who have already encountered the labour of sowing the seed of divine truth in this hitherto barren region, have found it far from unproductive; and there is every reason to believe, that, under the hand of assiduous cultivation, it will ere long be fruitful as the garden of the Lord.⁴

To bring this long, but we hope not unimportant or useless discussion to a close, we may remark, that, if the absence of a national establishment of religion be connected with no evil, it is an obvious and positive good. The advocates of such institutions, while they have contended that they yielded benefits for which it was worth while to bear them, have never maintained, we believe, that they were blessings in themselves. The heavy expense which they entail upon a country—the corrupting influence of church patronage—the anti-national bias of an endowed hierarchy—the inundation of interested and worldly ministers—and the heart-burnings inseparable from the elevation of one sect above its fellows—are evils which might be thought too great to be suffered for any price; but they are at all events too great to be endured for nothing.

To the absence of a religious establishment has been referred, and perhaps with some justice, the liberality of different sects towards each other, which exists to an eminent degree in the republic. The feature itself is at all events a very pleasing one, and must contribute very materially, both to the facility of individual labour, and the power of united exertion. “The different denominations in this country,” says Mr. Ward, “come together in delightful harmony, and cooperate without being obstructed by those impediments which exist in other countries. The Sunday-school Union, in New York, exhibits a noble specimen of the true christian feeling, and the Union flourishes accordingly.”

We may now turn to the consideration of a subject which we have already incidentally noticed,—we mean the Revivals of Religion by which some parts of the United States have been distinguished. Few things have struck the ear of the

⁴ We recommend it to the serious consideration of religious individuals or families who propose to emigrate, whether it is not their duty, by settling in some of the new states of the Mississippi valley, to assist in the promotion of vital religion in a portion of the world, the importance and influence of which is increasing at a ratio of which it is difficult to form an adequate estimate.

christian public in this country with more surprise and incredulity than the accounts which have of late more particularly reached us, of wide-spreading religious excitements, and conversions in a few weeks amounting to several hundreds, and, in some cases, thousands. Not a few have asked, with the very best intention, What is to be thought of these things? Must not large allowances be made, either for glowing representations, or for enthusiastic feeling? We apprehend that no judicious person, on either side of the Atlantic, commits himself to the approbation of every thing which may be called a revival of religion, or may be attendant upon one. Some of them, it is admitted on all hands, have been enthusiastic to a great degree; while others have been eminently characterized by the exercise of sound judgment, the awakening of holy emotion, and the production of valuable fruits. For the former we make no apology; of the latter we shall endeavour to lay before our readers a brief but comprehensive view.

It appears that we are not to consider a revival of religion as synonymous with a multitude of conversions. By an author who writes from his own observation, their peculiar feature is illustrated in the following manner:—"Imagine a sinner awakened, and led on to conversion by reflection; having, in the mean time, little or no intercourse with other minds on the subject of religion, but associating principally, or exclusively, with his bible, and communing alone with his own heart and with God. Scarcely a second person is aware of the state and progress of his mind, except that, if he is concerned in the common intercourse of life, the more than usual gravity and seriousness of his demeanour will naturally be observed. There are, doubtless, a great many conversions of this sort, and they may be called, in distinction from another class, insulated conversions. Suppose an individual has been awakened by the admonitions of a sermon, or of some private intercourse with other minds, and is conducted by the Spirit of God to the stage of genuine conversion, but is virtually alone in this state and progress of his mind, there being no second person in his neighbourhood in a similar condition; this may also be called an insulated conversion, though not so absolutely so as the other case supposed: there was, indeed, a social influence which first awakened his attention, but no sympathy of other minds in a like condition, either to originate instrumentally, or to urge on his career. There is little reciprocal influence between such conversions and society. We may suppose, again, a community of greater or less extent, bound together by many common ties of a social character, through the channels of which sympathy on all subjects of common interest, especially those calculated to agitate the mind, is easy and quick. It may further be supposed, that the spirit of God arrests the attention of an unconverted individual of such a community, producing a very anxious solicitude for the salvation of his soul—so anxious, that he cannot keep it a secret if he would. It is, moreover, supposed, that this community are generally instructed in the doctrine of repentance,

as essential to peace with God,—and of regeneration, to salvation. It is the common public opinion—the popular belief, by an habitual speculative assent. Of course it is an easy and natural step to the conclusion, that it is quite reasonable, and even important, for every individual, at some period of his life, to devote himself, in special earnest, to his own preparation for eternity—that he is in danger of being overtaken in his sins by death. When, therefore, an individual of such a community is suddenly and powerfully seized with a concern for his soul's eternal welfare—so powerfully that he cannot conceal it—that his feelings break out in tears and in prayers—that he throws himself upon the compassion of christians as more fitted to guide his anxious mind, and to be his intercessors with God—and that, of necessity, the matter becomes a subject of some public notoriety—it very naturally produces a pause in the ordinary career of those with whom this individual is more intimately allied. And it may also be supposed, that the same Spirit which has smitten the individual with a conviction of his guilt, and a sense of his danger, employs that very event as an instrument of awakening his former associates to an equal degree of concern, so that they not only pause at his arrest, but are themselves arrested, finding that they too are involved in the same condemnation, and have need of the same pardoning mercy and sanctifying grace. And now a group of individuals are together, asking, with an affecting and overpowering earnestness—What must we do to be saved? And this increase of the number renders it still more a matter of public notoriety; and there is a general pause. Every individual of this group has his more intimate connexions with society as the first individual had with them; and for the same reasons, and we will suppose, by the same divine influence, the number of the anxious is soon multiplied, till a crowd of individuals are together asking and seeking the way of salvation; and soon a whole community are affected, in a greater or less degree. All sympathize. Christians are 'filled with faith and the Holy Ghost,' and with an uncommon spirit of prayer; they are excited to diligence and roused to activity. The minister or ministers of religion are greatly animated, and uncommonly furnished by the natural excitements of such a state of things. The house of God is thronged, and the assemblies deeply affected and impressively solemn. Every sermon, and every prayer, and every exhortation, seem to tell with amazing power on the congregated multitudes. Sinners are converted, and others awakened, and the work goes on with increasing power, extending through the community. Meetings are necessarily multiplied to meet the exigencies; ministers and christians have as much as they can do to attend to the anxious, to guide the inquiring, and to conduct the frequent public assemblies of the people. They visit from house to house, warning the careless, encouraging and confirming the trembling hope, rejoicing with those who rejoice, instructing, exhorting, and offering up prayer. And this is somewhat the manner of an American revival of religion. And the fruit of it is, that many sinners are hopefully born

again, the church enlarged, believers improved in their christian character, the interests of religion obtain a wider and more solid foundation in the community, and the way is better prepared for another season of like refreshing influence from above.”^{*}

American revivals, therefore, in part at least, owe their existence and peculiarities to sympathy. The supposition, however, that they wholly do so, and that they are nothing more than powerful sympathetic excitements, is by no means reconcilable with the nature of the results. “There is nothing in the social principle,” as Mr. Colton justly remarks, “to account for a great and sudden movement of a whole community, upon a subject which, like that of the christian religion, has been before them from time immemorial, with all its sanctions and with all its motives—nothing in it, independent of the coming in of a special influence—an influence which does not lie in the letter of christianity. A community may be surprised by what is new—but everything in the letter of christianity is old. A community may be greatly moved by what naturally and deeply affects their passions, when unexpectedly brought before them by the eloquence of the tongue, or under the affecting power of circumstances. All such excitements, however, can only be momentary. But that the histories, and doctrines, and truths of religion, in which the public mind had been thoroughly versed from the cradle, should suddenly be armed with an unwonted power, not only over the minds of individuals, but so as manifestly to affect a whole community, and operate a thorough change in the hearts and lives of many individuals of that community, is a fact, which, so far as I know, it lies within the compass of no philosophy to account for, but that of the religion which is the instrument of the change, and which professes to solve the problem by a reference to the powers of the Holy Ghost. What reason is there that one community should feel more than another, or one person more than another;—their education being the same, and other things equal, which belong to the same relations and influences of society? And what reason, that the same communities and the same persons should feel more at one time than another, under the same system of means? Independently of the Spirit of God, there is a mystery in this; but with it, there is no mystery.”

It has been customary to regard American revivals of religion as connected generally, if not uniformly, with scenes of enthusiastic extravagance; but it would appear that such an idea has been entertained with little truth. Without maintaining an entire absence of irregularities, which, indeed, it would have been, in the highest degree, unreasonable to expect, the author we have already quoted gives the following general statement:—“The ostensible phenomena of revivals of religion in the United States have exhibited themselves very much according to the characters of the communities affected,

^{*} Rev. C. Colton on American Revivals of Religion, pp. 10—14.

and of the individuals to whom, in the providence of God, have been committed the guidance and control of public feeling. In New England, the character of the communities has always been of a grave and sober cast, where thought takes lead of feeling; and the temperament of the ministry is more severe than ardent—more prone to stock the understanding than excite the passions. Hence the public excitements of revivals have never exposed the people or the ministers to extravagances. The most remarkable characteristic of such seasons is not noise but stillness—the reign of contemplative silence and solemn reflection. The world itself seems hushed, as if awed by eternity. The public assemblies are thronged, indeed, but the ordinary restiffliness of an unthinking crowd is settled into a wrapt attention of the soul, and into the silent, but not less expressive demonstrations of the deepest emotions. Public order is not less, but more exact. A violation of it would be the more shocking. There is no want of feeling, and no difficulty in controlling it. And I have yet to learn the occurrence of any notable disorders in all the revivals of New England that have ever come to my knowledge. They may have happened, but I never heard even of one. All is decency, and all quietness—not, however, the quietness of stupor, but of subdued feeling. A large portion of New England is literally educated to revivals. The present generation of ministers and churches has been born in them, and brought up in them, and is familiar with all their scenes. They understand the symptoms—they know what to do and how to do—and the people know how to behave. In the highest excitement of public feeling, it would be morally impossible to drive the people into disorder or extravagance. They have no such habit. Such is the fixedness of their character, that no power on earth could essentially discompose the public mind. But all this cannot be said of every portion of the population of our country. Farther west there is less of the stubbornness of a well-defined and fixed character, as the settlements are new, and society comparatively heterogeneous and unorganized. Farther south, the people are more ardent and more excitable. But the medium of those extremes is of a character qualified between the two—I mean that medium of society, which is found in the intermediate territories. And there are many, very many communities without, and some of them far without New England, in the states of New York, New Jersey, and Ohio, where revivals of religion are characterized with as much sobriety as in the land of the pilgrim fathers. Irregularities and extravagance are no more essential attributes of revivals than are the physical conditions of the territory and climate. They are mere accidents, when they happen to occur, owing to the state of society, or to the want of a proper superintendence, or to the combined influence of both these causes. A proper superintendence may, at all times, and in any community, prevent them.”*

* Colton, p. 132.

It is conceived by Mr. Colton, and doubtless by his American brethren generally, that there is in the revivals with which they have been favoured something peculiar, not only to their own country, but to the last age of christianity.

We cannot here enter into the details by which he supports his opinion; but if the views of this writer be adopted, (and we confess that we are disposed to adopt them,) it becomes of some interest to inquire what the reasons may have been which, either in themselves have favoured the production of revivals in the United States, or may have rendered it good in the eyes of divine wisdom thus peculiarly to honour them. On these points let us again hear Mr. Colton. "It is remarkable that revivals of religion, under their American character, commenced in New England, and were, till quite recently, principally confined to that region. And their extension westward and southward, I believe, has generally been found in the track of New England emigrants, or springing up under the labours of New England ministers, until they are now beginning to be reported from every part of the land. The great bulk of revivals, however, are still found in the east and north. Such facts may be presumed to have a connexion with the original elements and peculiar frame of society, as also with the blessing of God in reward of the distinguished christian virtues of the founders of such institutions, and of the fidelity of successive generations in supporting them in their original spirit. It is a general and exact truth—that the pilgrim fathers of New England laid the foundations of their civil and social edifice, and of their religious institutions, in tears, and prayers, and in much faith. And the experiment of 200 years has proved that God has regarded those tears, and remembered those prayers, and plentifully rewarded those works of faith."

Our author refers us likewise to the general aspect of society in the transatlantic republic. "It is generally understood, that the state of society in the United States is very near to a common level. And so far as the sympathies of the community are concerned, on any subject of great and common interest, it is agreeable to fact. Especially is it so in those regions where revivals of religion originated, and have principally flourished. It may be said of all the minor communities, of which the grand community is composed, that, in each of them, every body knows every body, and feels an interest in every body; so much so, that nothing of material interest transpires with a family, or scarcely with an individual, but that a pulse of sympathy beats through the whole body. Such being the state of society, and religion being generally acknowledged and esteemed the paramount interest of man, and, withal, the public conscience being preserved pure and susceptible, it is not very difficult to see, that the marked conversion of one or more individuals might become a subject of common and public interest. And admitting the scripture doctrine of the office and special agency of the Holy Spirit in the work of conversion, the change might well be regarded with a high degree of respect and reverence. It has ever

been considered as a great and decided change—a change which every one must undergo, in order to salvation. It has been habitually urged and pressed upon the conscience as a present duty. With a public mind so enlightened, and a conscience so susceptible, and a common sympathy so all-pervading, it can hardly appear incredible that the awakening of one sinner should be the means of awakening others, and the conversion of one the means of other conversions. And to this day there are no barriers of *caste* in the United States—no impaled, insulated conditions of society, of a character to limit the common circulation of good and healthful moral influences—or to prevent a reformation begun in one place, from reaching every other place.” It is a striking indication of the extent to which sympathy is carried in religious concerns, that, among ministers of the same denomination, a custom of exchanging pulpits exists, to the amount of nearly one-fourth of their services. It thus arises that the influence of even a single minister of peculiar energy becomes widely felt; and it is an honourable feature in the congregation over which he is fixed, that they can rejoice in this extension of his usefulness.[†]

To these causes may be added, we conceive, the character of the theological system, which, within the last century, has been advocated in New England, and has now obtained a general prevalence. The change accomplished within this period is thus luminously stated by Dr. Lyman Beecher: “Our Puritan fathers adhered to the doctrine of original sin, as consisting in the imputation of Adam’s sin, and in a hereditary depravity; and this continued to be the received doctrine of the churches of New England, until after the time of Edwards. He adopted the views of the reformers on the subject of original sin, as consisting in the imputation of Adam’s sin, and a depraved nature transmitted by descent. But, after him, this mode of stating the subject was gradually changed, until, long since, the prevailing doctrine in New England has been, that men are not guilty of Adam’s sin, and that depravity is not of the substance of the soul, nor an inherent or physical quality, but is wholly voluntary, and consists in the transgression of law, in such circumstances as constitutes accountability and desert of punishment. This change was not accomplished without

[†] Though Unitarianism stands far removed from all connexion with revivals, its diffusion has been with great probability traced to this sympathetic practice. “The question has often been asked, what has led to that awful degeneracy of Boston with respect to evangelical truth, which the friends of the ‘faith once delivered to the saints,’ have so long observed and deplored? Various reasons have been assigned for this phenomenon, a phenomenon nearly, if not entirely unparalleled in ecclesiastical history: but I acknowledge, none of these reasons have ever satisfied me. The licentiousness and derangements of the revolutionary war were known, and exerted an influence in other places as well as in Boston. The literary character and inquiring spirit of the clergy have been quite as much distinguished in some other places as in that town. The same remark might be made with respect to several other considerations usually offered to assist in solving the difficulty. I have scarcely any remaining doubt, that a principal cause of the effect in question is to be sought in indiscriminate exchanges with all classes of heterodox ministers. There probably never was a place in which this system has been carried to such a length as in Boston.”—*Spirit of the Pilgrims*, p. 143.

discussion. It was resisted by those who chose to be denominated Old Calvinists, and advocated by those who were called Hopkinsians and New Divinity men, until, for many years, these views of original sin have been the predominant doctrine of the ministers and churches now denominated Evangelical. These, while they disclaim the language held by Calvin and Edwards on the subject of imputation, do, in accordance with the bible and the reformers, hold that there is a connexion of some kind between the sin of Adam and the universal, voluntary, and entire depravity of his posterity; so that it is in consequence of Adam's sin that all mankind do sin voluntarily, as early as they are capable of accountability and moral action. The pamphlets and treatises on this subject were written, and the subject settled," adds Dr. B. "chiefly before my recollection. But I have read them, and have searched the scriptures, and have, from the beginning, accommodated my phraseology to opinions which had been adopted as the result of an investigation which commenced more than seventy years ago, and has been settled more than fifty years; and which is now, with some variety of modification, received substantially, as I apprehend, by two-thirds, if not by three-fourths, of the evangelical divines in the United States."^u

^u Spirit of the Pilgrims, vol. i. p. 158. Dr. Beecher goes on to say, "Some of the most approved writers on this subject are, Hopkins, the younger Edwards, West, Smalley, Spring, Strong, Dwight; and in England, Andrew Fuller, one of the greatest and best of men. The following quotations from several of these writers will shew the fact, and the nature of the change in the mode of stating the doctrine of original sin. 'It is not to be supposed that the offence of Adam is imputed to them, [his posterity,] to their condemnation, while in their own persons innocent; or that they are guilty of the sin of their first father antecedent to their own sinfulness. All that is asserted as to what the scriptures teach is, that, by a divine constitution, there is a certain connexion between the first sin of Adam, and the sinfulness of his posterity.' — *Hopkins* vol. i. p. 319.

"The subject is thus stated by Dwight. '1. That by one man sin entered into the world. 2. That in consequence of this event, all men have sinned. 3. That death, as the consequence of sin, has passed upon all men.' And he says, 'It is clearly impossible that any being except a thinking, voluntary one, should be the subject of either virtue or sin.'

"Please to remember that your wicked nature is your own, in the most personal sense; for, though we are sinners by Adam; though there is an established connexion between the sin of Adam and the sin of his posterity; though all the children of men are, by nature, totally depraved, in consequence of Adam's sin; yet sin is a personal quality. And as your hearts and souls are your own, and not the hearts and souls of other men; as your thoughts and volitions are your own, and not the thoughts and volitions of others; so your sin and evil nature are your own, and not the sin and evil nature of another. David, in his penitential confession evidently refers to the established connexion between the sin of Adam and his posterity; for, he says, with the note of attention, 'Behold, I was shapen in iniquity, and in sin did my mother conceive me.' But he does not confess the sin of Adam any more than the sin of Seth; nor will any other man who is the subject of a proper share of conviction; for sin is a personal quality, and cannot be transferred from one to another, any more than the heart or soul of one man can be transferred to another." — *Spring's Disquisition, as quoted in Ely's Contrast*, p. 79.

"Adam's first offence was some way or other the occasion of the universal sinfulness of his future offspring. And the question now before us is, how his sin was the occasion of ours. 1. Adam did not make us sinners by causing us to commit his first offence. Nor can we more easily believe, — 2. That he made his posterity sinners by transferring to them the guilt of his first transgression. The doctrine of imputation, therefore, gives us no ground to suppose that all mankind sinned in, and fell with, Adam, in his first transgression; or that the guilt of his first sin was, either by him, or by the Deity, transferred to his posterity. Nor can we suppose, —

This change of theological system, (we speak without committing ourselves to its entire approval,) must undoubtedly have exercised an extensive influence on the modes of conceiving other topics, besides those more immediately specified, and have powerfully modified the whole style of pulpit address. In the latter respect, the change is wholly in favour of a more efficient ministry. The notions that men are born to be punished for Adam's sin, that they are summoned to duties they are not able to perform, and are to be tormented with the loss of happiness they never had the opportunity of attaining, whatever may be their other merits, have a clear adaptation, on the principles of common sense, to frustrate all exhortations, and to lull men into an imperturbable slumber. The new calvinism of New England, on the contrary, bears upon the conscience with a direct and immense pressure; and to this cause some of their writers have, we think with great reason, attributed the signal success of their ministry.

But it appears, that, beyond the general influence of a stimulant and awakening ministry, there are methods employed in the western world for the direct and specific purpose of producing revivals of religion. On this part of the subject, Mr. Colton's treatment of which is highly interesting and important, our limits will not allow us to enter into detail. The modes of proceeding which have been adopted are of great variety; but they are obviously pervaded by the general design of bringing known and familiar truth into a more direct and powerful bearing upon individual feeling. Hence the protracted services, in which preaching and other exercises are kept up incessantly for a number of days, varying from four to twelve or thirteen; and hence the various methods of dividing congregations, from which such valuable effects have often resulted. Variety, in truth, is stated to be essential to the system: something to break in upon the ordinary routine of religious services, by the very regularity of which, perhaps, much may be done to lull the mind into slumber in the midst of awakening truths. That much wisdom is necessary to the beneficial use of such methods, we have no inclination to deny, but we are fully convinced that the system which employs them is founded upon right principles, and that they need only to be wisely used in order to produce effects of extraordinary power.

Among the various methods adopted for the diffusion of the gospel in the United States, the holding of "camp-meetings," a practice prevailing chiefly among the Methodists, has attracted considerable attention and animadversion. When such a

3. That Adam made men sinners by conveying to them a morally corrupt nature. There is no morally corrupt nature distinct from free, voluntary, sinful exercises."—*Emmans*, as quoted in *Ely's Contrast*, pp. 67, 69, 71.

"Men have lost none of their ability to obey his commands by the fall; they are as really able to obey every divine command as Adam was when he came out of the forming hand of his Maker."—*Mass. Miss. Magazine*, as quoted in *Ely's Contrast*, p. 75.

meeting is announced, presently all the roads, sometimes for a hundred miles round, are covered with travellers on foot, on horseback, and in gigs, or waggons, hastening themselves and their families to this grand celebration. The centre of a forest, 'deep, dark, lonely, and almost impenetrable,' is the theatre usually chosen. The native tenants of the wood being frightened away by the noise and tumult, it is taken possession of by this immense congregation. The horses being tied to the trees, and the waggons ranged in rows along the skirts of the forest, the interior is prepared for the purpose by cutting down the trees, and laying their branches along the ground to be used as seats; the space is railed round, and a pulpit elevated. Religious services are then kept up for several days. Great evils have been ascribed to these meetings; but while it would obviously be too much to expect that such an occasion should attract no persons of profligate character, or that they should not avail themselves of such an opportunity for licentious excesses, the unsparing manner in which the accusations have been brought, throws great suspicion upon the charges themselves. What is unusual may easily be deemed wrong; and when a thing is ranked as an evil, nothing is easier than to imagine mischiefs which do not exist, and to exaggerate those which do. Admitting such meetings to be in themselves undesirable, it may be questioned whether in the actual state of the republic, some such services are not necessary; and whether efforts of any other kind could adequately convey religious instruction to a population so widely dispersed among the vast forests and prairies of the west. It is a relief, at least, to know that *all* testimony is not against them. Mr. Cooper, who is at all events no enthusiast in religion, speaks of such services as "alike impressive and beautiful." "It is a fashion," he adds, "to ridicule and condemn these meetings, on the plea that they lead to excesses and encourage superstition. As to the former, the abuse is enormously exaggerated, though, beyond a doubt, there are individuals who attend them that would seek any other crowd to shield their vices; and as to the latter, the facts shew, that, while new and awakened zeal, in ignorant persons, frequently breaks out in extravagance and folly, they pass away with the exciting cause, and leave behind them tender consciences and a chastened practice."

Before closing this chapter, we must take a passing notice of the important theological institutions, with which it may be said that the republic abounds. This spacious territory, notwithstanding its recent settlement, is almost studded over with colleges and universities. Of the rank of these in relation to general literature some notice will be taken in the following chapter; we only observe here, that in many of them there is a theological department of great value and efficiency. Besides these, there are also a number of strictly theological seminaries, of which a tabular view is annexed, devoted entirely to the training of ministerial candidates. The American Education Society is a valuable auxiliary to these; taking for its object, and pursuing it in a very catholic and praiseworthy spirit, the pecuniary provision necessary for eligible candidates, when they are destitute of

resources for completing their education. A new, and hitherto, we believe, a peculiar feature in educational institutions, has been recently introduced into some of the transatlantic theological seminaries, namely, that of combining study with manual labour; several hours daily being devoted to some vigorous bodily employment. The principal object sought by this arrangement, appears to be the preservation of health of body and elasticity of mind; and, so far as experience has hitherto gone, the results are highly favourable to the wisdom of its adoption. The number of theological institutions in the United States decisively indicates the value which the professors of religion there attach to an educated gospel ministry.

The benevolent institutions of the republic, on which, perhaps, we may here make the single remark we have to offer, although most of them of comparatively recent origin, and most of them formed in generous imitation of British example, are of extraordinary vigour for their youth, of rapid growth, and of great promise. Their general denominations, and the amount of their receipts for the years 1829 and 1830, will be found in one of the tables at the end of the chapter.

We may conclude this chapter with a general view of the religious character of the republic in the words of a pious English traveller.* The extent in which vital religion prevails here is known only to the Searcher of hearts; but there is the strongest reason to believe that it is very considerable. "I am disposed to think that a cursory traveller visiting England and America, without prejudice, and with equal opportunities of observation, would draw a more favourable inference with respect to the state of religion in the Atlantic cities of the eastern and middle states, than with respect to the towns or cities of the former. I confine my supposition to the Atlantic cities, because the benighted shores of the Gulf of Mexico, and many portions of the western wilds, possess few features in common with our favoured country, and should rather be compared with our colonial possessions in the East or West Indies. Indeed, I might include extensive districts in the back parts of many of the Atlantic states, where population is thinly scattered, and opportunities of public worship occur only once or twice a month. In some of these, I thought I observed great coldness in religious concerns; the unfrequent return of public ordinances rendering the inhabitants rather less than more willing to avail themselves of them when offered. I felt more disappointed in such districts, than in the frontier settlements. In the latter, some spiritual as well as temporal privations are naturally to be expected, though I thought their inhabitants often exhibited greater solicitude for schools and churches than those of the former. In fact, the new settlers from the Atlantic states have, in many cases, participated in the advantages of that general revival of religion which promises to be the characteristic of modern times; and before their zeal has had time to cool in solitude and separation, it has often secured a provision for those religious ordinances by which it may be cherished and sustained.

* Mr. Hodgson

But the back parts of Pennsylvania and Virginia were settled in less auspicious days; and we must not be surprised if the flame of piety, burning less brightly at that time, even on the coast, should have grown pale and sickly when removed into an atmosphere which ministered little to its support."

THEOLOGICAL SEMINARIES.

Name.	Place.	Denomination.	Com. operation.	No. educat.	Stud. in 1831.	Vols. in Library.	No. Prof.
Bagnor Theological Seminary . . .	Bagnor, Me. . .	Congregational	1816	50	14	1,200	
Theological Seminary	Andover, Mass. . .	Congregational	1808	514	139	10,000	4
Theological School	Cambridge, do. . .	Cong. Unitar. . .	1824	87	33	...	4
Massachusetts Epis. Theo. School .	Ditto ditto . . .	Episcopal . . .	1831	...	...	...	4
Theological Institution	Newton, ditto . . .	Baptist	1825	25	22	1,020	2
Theological Dep., Yale College . .	New Haven, Ct. . .	Congregational	1822	70	48	...	3
Theological Ins., Epis. Church . .	New York, N. Y. . .	Prot. Epis. . .	1819	134	28	3,600	4
Theological Seminary of Auburn . .	Auburn, ditto . . .	Presbyterian. . .	1821	167	51	4,000	3
Hamilton Lit. and Theo. Instit. .	Hamilton, ditto . .	Baptist	1820	100	80	1,600	4
Hartwick Seminary	Hartwick, ditto . .	Lutheran	1816	...	...	...
Theological Sem. Dutch Ref. Ch. .	N. Brunswick, N.J.	Dutch Reform. . .	...	...	24	...	
Theological Sem. Pres. Ch. U. S. .	Princeton, ditto . .	Presbyterian . .	1812	537	92	6,000	3
Seminary, Lutheran Church, U. S. .	Gettysburg, Pa. . .	Evangelical L. .	1826	...	43	6,200	2
German Reformed	York, ditto	G. Reform. Ch. .	1825	11	14	...	2
Western Theological Seminary . . .	Alleghany T. do. .	Presbyterian . .	1828	...	22	3,964	2
Episcopal Theological School, Va. .	Fairfax Co. Va. . .	Prot. Epis. . . .	...	...	19	1,500	3
Union Theological Seminary	Pr. Ed. Co. do. . .	Presbyterian . .	1824	30	42	3,000	3
South Theological Seminary	Columbia, S. C. . .	Ditto	1829	...	9	...	2
South West. Theological Seminary	Maryville, Ten. . .	Ditto	1821	41	22	5,500	3
Lane Seminary	Cincinnati, Ohio. .	Ditto	1829	...	...	...
Rock Spring Seminary	Rock Spring, Il. . .	Baptist	1827	...	5	1,200	1

There are Roman Catholic Theological Seminaries at Baltimore and near Emmitsburg, Maryland; at Charleston, South Carolina; at Bardstown and in Washington county, Kentucky; and in Perry county, Mo.

RELIGIOUS DENOMINATIONS.

Denominations.	Ministers.	Churches or Cong.	Commun. nicants.
Calvinistic Baptists	2,914	4,384	304,827
Methodist Episcopal Church	1,777	...	476,000
Presbyterians, General Assembly . .	1,801	2,253	182,017
Congregationalists, Orthodox	1,000	1,270	140,000
Protestant Episcopal Church	558	700	...
Universalists	150	300	...
Roman Catholics . . . . .	...	...	...
Lutherans	205	1,200	44,000
Christians	200	800	25,000
German Reformed	84	400	17,400
Friends, or Quakers . . . . .	...	400	...
Unitarians, Congregationalists	160	193	...
Associate, and other Methodists . . .	350	...	35,000
Free-will Baptists	300	400	16,000
Dutch Reformed	159	194	17,888
Mennonites	200	...	30,000
Associate Presbyterians	74	144	15,000
Cumberland Presbyterians	50	75	8,000
Tunkers	40	40	3,000
Free Communion Baptists	30	...	3,500
Seventh-day Baptists	30	40	2,000
Six-principle Baptists	25	30	1,800
United Brethren, or Moravians	23	23	2,000
Millennial Church, or Shakers	45	15	...
New Jerusalem Church	30	28	...
Emancipators, Baptists	15	...	600
Jews and others not mentioned . . . .	...	150	...

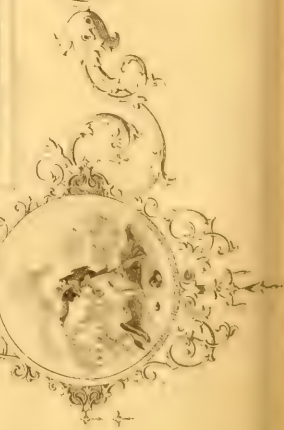
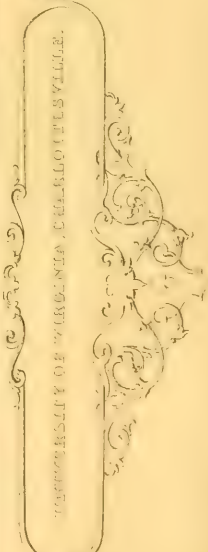
TOPOGRAPHY OF

BENEVOLENT SOCIETIES.

Name.	Presidents.	Forma.	Income, 1828-9.	Income, 1829-30.
			<i>Dollars.</i>	<i>Dollars.</i>
Connecticut Missionary Society . .	Hon. Jonathan Brace	1798	2,070 33	3,013 06
Philadelphia Bible Society	Right Rev. Wm. White, D. D. .	1808	7,724 41	.....
American Board Foreign Miss. . .	John C. Smith, LL. D.	1810	102,000 00	106,928 26
American Baptist Board For. Miss.	Rev. Jesse Mercer	1814	16,061 90	20,000 00
American Tract Society, Boston . .	Hon. William Reed	1814	13,896 18	11,102 06
American Education Society	Samuel Hubbard, LL. D. . . .	1816	30,434 18	30,710 14
American Asylum, Deaf and Dumb	Hon. Nathaniel Terry	1816	2,341 55	.....
American Bible Society	Col. Richard Varick	1816	143,184 33	170,067 55
Presbyterian Br. American Edu. So.	Arthur Tappan, Esq.	1817	.....	12,632 00
Board Missionary General Assembly	A. Green, D.D., LL. D.	1818	8,000 00	12,632 43
Methodist Missionary Society . . .	Rev. Elijah Hedding	1819	14,176 11	13,128 00
Board Education General Assembly	Thomas M'Auley, D. D.	1819	.....	.....
American Colonization Society . . .	Charles Carrol	1819	19,561 93	20,295 00
Dutch Ref. Missionary Society . . .	.....	1822	4,470 71	4,604 00
American S. S. Union	Alexander Henry, Esq.	1824	18,527 00	70,521 70
Baptist General Tract Society	Rev. William T. Brantly	1824	5,256 76	5,536 39
Prison Discipline Society	Hon. William Jay	1825	3,531 00	3,353 52
Massachusetts S. S. Union	Hon. William Reed	1825	1,018 80	1,465 46
American Tract Society	S. V. S. Wilder, Esq.	1825	60,000 00	60,210 00
American Temperance Society	Marcus Morton, LL. D.	1826	.....	.....
American Home Missionary Society	S. Van Rensselaer, LL. D. . . .	1826	26,997 31	33,229 00
American Seamen's Friend Society	S. Thompson, LL. D.	1826	1,214 38	4,159 87
Massachusetts Miss. So. reorganised	Leonard Woods, D.D.	1827	5,247 32	.....
American Peace Society . . . . .	.....	1828	.....	495 84
African Education Society	Right Rev. Wm. Meade, D.D. . .	1830	.....	.....
			485,714 20	584,084 29



THE TEMPLE OF SOLOMON IN JERUSALEM



CHAPTER III.

LITERATURE—ARTS—MANNERS.

IT has been our aim, in treating of the varied subjects to which the plan of the work has directed our attention, to avoid all unnecessary comparisons between the circumstances and condition of the republic, and of our own country, and to leave our readers to form their own judgment on the facts which have been laid before them; but the topics of the present chapter are of a character which frequently require comparison in order to render them intelligible: we trust, however, to be able to prove that even this process may be accomplished without manifesting the prejudices of nationality to the absurd excess which some, even of the most talented publications of the parent state have exhibited. As if desirous to be revenged on the Republic for the substantial advantages it possesses, they pour out a torrent of contemptuous abuse on their literature and manners.

The language of the United States, for the most part, differs so slightly from that of the middle and southern counties of England, that it requires some considerable discrimination to ascertain any points of distinction; and those which are perceptible rather pertain to accent and intonation, than affect the sense. It is matter of surprise, indeed, that the idiom of the English language has undergone so little alteration. Several of the differences which exist arise from the Americans expressing their meaning by words which were in use at the time of the emigration of the "pilgrim fathers;" while, in the mother-country, other terms have been substituted:—as, for instance, the word "sick," which the Americans continue to use instead of "ill," or "indisposed." "The best English," says Mr. Cooper,^a "is spoken by the natives of the middle states, who are purely the descendants of English parents, without being the descendants of emigrants from New England. The educated men of all the southern Atlantic states, especially the members of those families which have long been accustomed to the better society of their towns, also speak an English but little to be distinguished from that of the best circles of the mother-country. Still there are shades of difference between these very persons that a nice and practised ear can detect, and which, as they denote the parts of the Union to which they belong, must be called

^a Notions of the Americans, vol. ii. p. 171.

provincialisms. These little irregularities of language solely arise from the want of a capital. Throughout all New England, and among most of the descendants of the people of New England, the English language is spoken with more or less of an intonation, derived, I believe, from the western counties of England, and with a pronunciation that is often peculiar to themselves. They form so large a proportion of the entire population of the country, that some of their provincialisms are getting to form a part of our ordinary language. The peculiarity of the New England dialect, (the term is almost too strong,) is most discernible in the manner in which they dwell on the last word of a sentence, or the last syllable of a word. It is not properly drawling, for they speak very quick in common, much quicker than the English; so quick, indeed, as to render syllables frequently indistinct: but, in consequence of the peculiar pause they make on the last word, I question if they utter a sentence in less time than those who dwell more equally on its separate parts. Among men of the world and of education, this peculiarity is, of course, often lost; but education is so common, and the state of society so simple in New England, as to produce less apparent distinction in speech and manners than it is usual to find elsewhere. The middle states certainly speak a softer English than their brethren of the east. I should say, that, when you get as far south as Maryland, the softest, and, perhaps, as pure an English, is spoken as is any where heard. No rule on such a subject, however, is without many exceptions in the United States. The emigration alone would, as yet, prevent perfect uniformity. The voices of the American females are particularly soft and silvery; and I think the language, a harsh one at the best, is made softer by our women, especially of the middle and southern states, than you often hear it in Europe. New York, Philadelphia, and Baltimore, have each their peculiar phrases. Some of the women have a habit of dwelling a little too long on the final syllables, but I think it is rare among the higher classes of society. I do not know that it exists at all as far south as Baltimore. As you go farther south, it is true, you get a slower utterance, and other slight varieties of provincialism. In Georgia, you find a positive drawl, among what are called the "crackers." More or less of this drawl, and of all the peculiar sounds, are found in the south-western and western states; but they are all too new to have any fixed habits of speech of their own. The usual vulgar phrases which are put into the mouths of Americans are commonly caricatured, though always founded in truth. 'I guess,' is a phrase of New England: it is used a great deal, though not as often as 'you know,' by a cockney. It proceeds, I think, from the cautious and subdued habit of speaking, which is characteristic of these people. The gentlemen rarely use it, though I confess I have heard it interlarding the conversation of pretty lips that derived none of their beauty from the puritans. You see, therefore, that it has been partially introduced by the emigrants into the middle states. Criticism is here so active, just now, that it is rapidly getting into

disuse. The New Yorker frequently says, 'I suspect,' and the Virginian, 'I reckon.' But the two last are often used in the best society in the mother-country. The difference in pronunciation and in the use of words, between the really good society of this country and that of England, is not very great. In America, we can only tell an Englishman by what we are pleased to call his provincialisms, and quite half the time the term is correct. I was struck at the close resemblance between the language of the higher classes in the mother-country, and the higher classes of my own, especially if the latter belong to the middle states. There are certainly points of difference, but they as often proceed from affectation in individuals, as from the general habits of the two countries. Cockneyisms are quite as frequent in the language of an English gentleman, as provincialisms in the mouth of an American gentleman of the middle states."

We can readily conceive that the Americans must often be strongly tempted to believe, from the specimens imported by emigrants, that they speak better English than the natives of Great Britain; for we have found, to our cost, that, although not unacquainted with most of the varieties of our native tongue, the cottagers of some of the most romantic parts of Lancashire and Yorkshire were as unable either to receive or communicate ideas through the medium of words known to us as though they had been inhabitants of the South Seas. Certainly we found far more difficulty than we have ever done among our Gallic neighbours.

The construction of the English language is a topic which occupies much more frequently, (we might almost say, incessantly,) the attention of the public in the United States than in Great Britain. The American linguists have been thought presumptuous in supposing they could possibly understand the language better than Murray, or other English grammarians; to an impartial examiner, however, there will appear much force and truth in many of their observations. The following extract from "Strictures on Murray's Grammar,"^b may be taken as a specimen: "'An article,' says Mr. Murray, 'is a word prefixed to substantives to point them out, and to show how far their signification extends.' Again, 'There are but two articles, *a* and *the*; *a* becomes *an* before a vowel or a silent *h*.' It was not difficult to find words in English resembling the nouns, verbs, adjectives, &c. of the ancient languages; but this was not enough for the first English grammarians; they must find in English as many 'sorts of words' as were said to exist elsewhere. Something called an article was found in Greek, and suspected to exist in Latin. *O*, the Greek article, is equivalent to *hic* in Latin, and *hic* in Latin is *this* (in some dialects *thic*.) in English. But *this*, Murray calls a pronoun. *The*, his article, is a contraction of *this*, once spelled *thae*, and, afterwards, *the*. *The* has been pressed

^b Journal of Education, vol. i. p. 425.

into the service, and made an article; while *this* has been denied *the* (or *this* or *that*) honour; for two words that are entitled to form a separate class are, certainly, highly distinguished. Now, we venture to say, that, in every important case, *this*, *that*, *these*, and *those*, may be substituted for *the*, without altering the sense. Mr. Murray says that *the* in the sentence, 'Nathan said unto David, Thou art *the* man,' is peculiarly emphatical; but thou art *this* or *that* man is equally so. 'An article, (our author says,) is a word prefixed to substantives,' *this* and *that*, *these* and *those*, *one*, *two*, *three*, and every other numeral and ordinal adjective, are prefixed to nouns in the same way, 'to point them out,' and even, 'to show how far their signification extends,' for they effectually limit the signification of the noun. *The* man, *this* man, *that* man, *forty* men, *seventh* man. The words in italic are all articles, if Murray's definition be correct. Thus we have disposed of one article. Not satisfied with one (that is *an*.) article, our grammarian must have two. *An* is a contraction of *one*. *An* is generally contracted into *a* before words beginning with a consonant, and *a* does not become *an*, as Mr. Murray asserts; for, at no very remote period of our literature, *an* was used before all words. *One* is sometimes spelled *ane*, hence *an*. *A* book is *one* book. The article *un*, which the French grammarians have impressed into the list of articles, is also their numeral adjective. How a numeral adjective can be called indefinite, is hard to conceive. Is *one* or *ten* an indefinite number? The fact is, *a*, *an*, and *the*, are as good adjectives as any in our language; and had there not been an article in the Greek grammar, these words would have been left among the adjectives in ours."

The subject of national education has engaged much attention, overcome many difficulties, and made considerable progress in Great Britain during the last forty years. Previously to that time, the opinion of the clerical, and perhaps of the lay aristocracy of England, was decidedly adverse to the education of the people at large; but finding that the dissenters would successfully conduct the great work of educating the poorer classes, the clergy resolved, perhaps wisely, not to suffer so powerful an engine to remain in the hands of their opponents; and from these contrary, but cooperating causes, has elementary education become in a good degree general. In the United States, however, the cause of the education of the people has had no such difficulties to contend with, and owes its successful progress to feelings far more honourable. State has vied with state, as to the most effective means of insuring the education of every individual within its borders. In the new states, large grants of land have been made by the general government to constitute funds for the support of public schools; and a reservation of land is made for that purpose, in the laying out of every new township. In other states, enactments have been made by the legislature, compelling every township to provide, by assessment, instruction for its popu-

lation, and rendering each township subject to indictment and fine if the regulation remains uncomplied with. We do not deem ourselves competent judges as to which of the states has made the best arrangements to attain so desirable a result; and our limits will not permit us to enter on a general collection of the details of the number of public schools, and the amount expended in their maintenance. In most of the states education at the public expense is one of the "rights" of "free-born Americans;" and throughout the Union there are very few whites who cannot both read and write. In the state of Massachusetts, by the returns from 131 towns presented to the legislature, it appears that the amount annually paid in those towns for public schools is 177,206 dollars, and the number of scholars receiving instruction is 70,599. The number of pupils attending private schools in the same towns is 12,393, at an expense of 170,342 dollars. The number of persons in those towns between the ages of fourteen and twenty-one who are unable to read or write, is fifty-eight. In the town of Hancock, Berkshire county, there are only three persons between the ages of fourteen and twenty-one, who are unable to read or write, and those three are mutes.

Infant schools have been extensively established in many of the states; and the best mode of conducting early instruction has occupied much attention. We would add the testimony of our own experience to the high importance of the training the human mind is capable of receiving between the ages of three and six, fully convinced as we are that the complexion of future life is frequently determined by the treatment received at that early age; and would especially urge on the consideration of religious parents, whether the facts they are so ready to attribute to innate hereditary corruption do not, in truth, to a great extent, result from their own irrational and injudicious treatment, or to that of those whom they employ.

Recently great attention has been bestowed on the improvement of the public schools, and a variety of means have been resorted to to render the teachers themselves more competent for their important work. Institutions for the improvement of schoolmasters are established,^c various associations for mutual improvement formed, lectures delivered, libraries accumulated, periodicals on education ably conducted, and the systems of Europe investigated; in fact, every process is in operation which can indicate intense interest—a patriotic persuasion that the stability of the empire depends on the intelligence and information of her people.

Where the elements of education are thus open to all, it cannot be otherwise than that the more wealthy should be desirous of acquiring a larger portion of knowledge for their children than the public elementary schools can be expected to afford. In the principal towns there are private schools, in which this desire may be fully

^c One benevolent gentleman, in New York, devoted 800*l.* per annum to this important object.

gratified, and as good an education may be obtained as in similar institutions in England, though, perhaps, at an advance of thirty per cent. on the cost. In some instances, the public schools have intrenched materially on private academies; while in others the case has been reversed. In some of the female seminaries classical attainments are carried much farther than is deemed desirable in England—Latin, Greek, algebra, and mathematics, forming part of the routine, in addition to philosophy, astronomy, geology, botany, and the usual accomplishments: and a recent traveller complains particularly of the young ladies of Cincinnati being very “blue.” It would appear to be characteristic of American education, that a general acquaintance with language and science should be imparted, without pursuing any particular branch to its utmost limit. Under such circumstances, there must be a liability to superficial knowledge in many cases. There is, however, a broad basis laid, on which the refinements of literature will naturally rise, as they are called forth by the increasing improvement of the national taste; and, indeed, the progress of the last few years indicates that the time is not far distant, when “eminent scholars” will not be so rare as they are now presumed to be.

The colleges in the Republic are numerous, and dispersed among the different states. Those which have attained the greatest celebrity, are Harvard University and Yale College. As it is our aim to afford information rather than offer opinions of our own, we have appended the systems of education pursued in one of these institutions in a note;⁴

4 A STATEMENT OF THE COURSE OF INSTRUCTION, EXPENSES, &c. IN YALE COLLEGE.

Terms of Admission.—Candidates for admission to the freshman class are examined in Cicero's Select Orations, Virgil, Sallust, the Greek Testament, Dalzel's Collectanea Græca Minora, Adam's Latin Grammar, Goodrich's Greek Grammar, Latin Prosody, Writing Latin, Barnard's or Adams' Arithmetic, Murray's English Grammar, and Morse's, Worcester's, or Woodbridge's Geography. Jacob's Greek Reader and the Four Gospels are admitted as a substitute for Græca Minora and the Greek Testament.—No one can be admitted to the freshman class till he has completed his fourteenth year; nor to an advanced standing without a proportional increase of age.—Testimonials of good moral character are in all cases required; and those who are admitted from other colleges must produce certificates of dismissal in good standing. The students are not considered as regular members of the college till, after a residence of at least six months, they have been admitted to matriculation, on satisfactory evidence of an unblemished moral character. Before this they are only students on probation.

Course of Instruction.—The faculty to whom is committed the government and instruction of the students, consists of a president; a professor of chemistry, mineralogy, and geology; a professor of the Hebrew, Greek, and Latin languages; a professor of mathematics, natural philosophy, and astronomy; a professor of divinity; a professor of rhetoric and oratory; and eight tutors.

The whole course of instruction occupies four years. In each year there are three terms or sessions.

The three younger classes are divided, each into two or three parts; and each of the divisions is committed to the particular charge of a tutor, who, with the assistance of the professors, instructs it. The senior class is instructed by the president and professors. Each of the four classes attends three recitations, or lectures, in a day; except on Wednesdays and Saturdays, when they have only two. The following scheme gives a general view of the authors recited each term:—

and a table, containing the names of the various colleges throughout the Union, and many interesting particulars, extracted from the American Almanac, is given at the close

FRESHMAN CLASS.

- I. { Folsom's *Livy*, from one half to two thirds.
Adam's *Roman Antiquities*.
Day's *Algebra*, begun.
Græca Majora, Vol. I., begun.
- II. { Folsom's *Livy*, finished.
Græca Majora, continued through the historical part.
Day's *Algebra*, finished.
- III. { Horace, begun.
Græca Majora, Vol. II., begun.
Playfair's *Euclid*, five books.

SOPHOMORE CLASS.

- I. { Horace, continued.
Græca Majora, continued.
Euclid, reviewed and finished.
- II. { Horace, finished and reviewed.
Græca Majora, continued.
Day's *Mathematics*; *Plane Trigonometry*, *Nature and Use of Logarithms*, *Mensuration of Superficies and Solids*, and *Isoperimetry*; *Mensuration of Heights and Distances*; and *Navigation*.
- III. { Græca Majora, continued.
Juvenal; Leverett's Edition.
Cicero de *Oratore*, begun.
Day's *Mathematics*; *Surveying*.
Bridge's *Conic Sections*.
Spherical *Geometry and Trigonometry*.
Jamieson's *Rhetoric*.

JUNIOR CLASS

- I. { Cicero de *Oratore*, finished.
Tacitus, begun.
Græca Majora, continued.
Olmsted's *Natural Philosophy and Mechanics*.
- II. { Tacitus; *The History*; *Manners of the Germans*; and *Agricola*.
Græca Majora, continued.
Natural *Philosophy*, finished and reviewed.
- III. { Astronomy.
Hedge's *Logic*.
Tytler's *History*.
Fluxions. } *At the option of the student.*
Homer's *Iliad*.
Hebrew, French or Spanish.

SENIOR CLASS.

- I. { Blair's *Rhetoric*.
Stewart's *Philosophy of the Mind*.
Brown's do.
Paley's *Moral Philosophy*.
Greek and Latin.
- II. { Paley's *Natural Theology*.
Evidences of *Christianity*.
Greek and Latin.
- III. Say's *Political Economy*.

In addition to the recitations in the books here specified, the classes receive lectures and occasional instruction from the professor of languages; the junior class attends a course of experimental lectures on natural philosophy; and the senior class the courses on chemistry, mineralogy, geology, and select subjects of natural philosophy and astronomy. The members of the several classes attend also the private exercises and lectures of the professor of rhetoric and oratory. A course of lectures on the *Oration of Demosthenes for the Crown* is delivered to members of the senior class. Specimens of English composition are exhibited daily by one or more of each of the divisions of the sophomore and junior classes. Written translations from Latin authors are presented by the freshman class. The lower classes are also instructed in Latin composition. The senior and junior classes have forensic disputations once or twice a week, before their instructors. There are very frequent exercises in declamation before the tutors, before the professor of oratory, and before the faculty and students in the chapel.

Gentlemen well qualified to teach the French and Spanish languages are engaged by the faculty to give instruction in these branches to those students who desire it, at their own expense.

The object of the system of instruction to the undergraduates in the college is not to give a partial education, consisting of a few branches only; nor, on the other hand, to give a superficial education, containing a little of almost every thing; nor to finish the details of either a professional or practical education; but to commence a thorough course, and to carry it as far as the time of the student's residence here will allow. It is intended to maintain such a proportion between the different branches of literature and science as to form a proper *symmetry and balance* of character. In laying the foundation of a thorough education, it is necessary that all the important faculties be brought into exercise. When certain mental endowments receive a much higher culture than others, there is a distortion in the intellectual character. The powers of the mind are not developed in their fairest proportions by studying languages alone, or mathematics alone, or natural or political science alone. The object, in the proper collegiate department is not to teach that which is peculiar to any one of the professions; but to lay the foundation which is common to them all. There are separate schools of medicine, law, and theology, connected with the college, as well as in various parts of the country, which are open to all who are prepared to enter on professional studies. With these, the undergraduate course is not intended to interfere. It contains those subjects only which ought to be understood by every one who aims at a thorough education. The principles of science and literature are the common foundation of all high intellectual

of this chapter. It will be perceived, that the intention of these institutions is to give a thorough education both in languages, mathematics, and the sciences; and there is

attainments. They give that furniture, and discipline, and elevation of the mind, which are the best preparation for the study of a profession, or of the operations which are peculiar to the higher mercantile, manufacturing, or agricultural establishments.

There are two public examinations of the classes in a year,—one in May, the other in September,—which are continued from four to six days each. The candidates for degrees are also examined at the close of their course of study.

There are three vacations in a year: one of six weeks, beginning at commencement, the second Wednesday in September; the second, two weeks from the second Wednesday in January; and the third, four weeks from the first Wednesday in May. No student is allowed to be absent, without special leave, except in vacations. The absence of a student in term time, even for a few days, occasions a much greater injury to his education than is commonly supposed by parents and guardians.

Public Worship.—Prayers are attended in the college chapel every morning and evening, with the reading of the Scriptures, when one of the faculty officiates, and all the students are required to be present. They are also required to attend public worship in the chapel on the Sabbath, except such as have permission to attend the episcopal, or other congregations in town.

Expenses.—The college bills are made out by the treasurer and steward three times a year, at the close of each term, and are presented to the students, who are required to present them to their parents, guardians, or patrons. If any student fails to comply with this requisition, he is not permitted to recite till the bills are paid.

	Dols.	Cts.
The annual charges in the treasurer's bill are,		
For instruction	33	00
For rent of chamber in college, from 6 to 12 dollars—average ..	9	00
For ordinary repairs and contingencies	2	40
For general damages, sweeping, &c., about	3	30
For wood, for recitation-rooms, about	1	30
Total.....	49	00

Besides this, the student may be charged for damages done by himself, and a small sum for printing catalogues, and other occasional expenses.

Board is furnished in commons by the steward, at cost, about 1 dollar 60 cents a week, or 64 dollars a year, not including vacations. It varies, however, with the price of provisions. Wood is procured by the corporation, and distributed to those students who apply for it at cost and charges.

The students provide for themselves bed and bedding, furniture for their rooms, candles, books, stationery, and washing.—There are also, in the several classes, taxes of a small amount, for the fuel in the recitation-rooms, catalogues, &c. If books and furniture are sold, when the student has no further necessity for them, the expense incurred by their use will not be great.

The following may be considered as a near estimate of the *necessary* expenses, without including apparel, pocket-money, travelling, and board in vacations.

	Dollars.
Treasurer's bill, as above	49 49
Board in commons, 40 weeks, from.....	60 to 70
Fuel and light.....	8 16
Use of books recited, and stationary	5 15
Use of furniture, bed, and bedding	5 15
Washing	8 18
Taxes in the classes, &c.	5 7
Total.....	140 to 190

No students are permitted to take lodgings in town, except when the rooms in college are not sufficient to accommodate all.

no reason to doubt that any students who remain, and diligently apply themselves, during the full term, may attain the object proposed. It is admitted, nevertheless, that a large proportion leave college for the busy and interesting concerns of life, before they have allowed themselves sufficient time to become thoroughly grounded. It may be doubted, however, how many individuals in England would condemn themselves to spend the fairest portion of their lives in celibacy, were they not amply supplied, by means of endowments, with the luxuries of life, and beguiled by

Students who wait in the hall are allowed their board; and those who occupy the recitation-rooms save their room-rent and fuel in winter, and receive a small compensation in summer. A cheap boarding-house is opened, under the direction of the steward, for those students who wish to board at a lower rate than it is furnished in commons. The price of board here is about 1 dollar 25 cents.

By a resolve of the corporation, a sum not exceeding one thousand dollars a year is appropriated to the relief of indigent students, and the encouragement of merit.

The Theological Department.—The instructors in the theological department are a professor of didactic theology, a professor of sacred literature, and the professors of divinity and of rhetoric in the classical department of the college.—The whole course of instruction occupies three years; and the students are divided into junior, middle, and senior classes.—The time of admission is at the commencement of the first collegiate term. The terms and vacations are the same with those in the college. The conditions for entrance are hopeful piety, and a liberal education at some college, unless the candidate have otherwise qualified himself for pursuing advantageously the prescribed course of studies.—No charges are made for the tuition and lectures.—No funds have as yet been granted to this department for defraying the expenses of indigent students.—Board may be obtained in private families at from 1 dollar 25 cents to 1 dollar 75 cents per week.

The Law School.—The Law School is under the direction of the Hon. David Daggett, LL. D., a judge in the supreme court in Connecticut, and professor of law; and Samuel J. Hitchcock, Esq., attorney and counsellor at law.—The students are required to peruse the most important elementary treatises, and are daily examined on the author they are reading, and receive at the same time explanations and illustrations of the subject they are studying.—A course of lectures is delivered by the professor of law, on all the titles and subjects of common and statute law.—A moot court is holden once a week, or oftener, which employs the students in drawing pleadings and investigating and arguing questions of law.—The students are called upon from time to time to draw declarations, pleadings, contracts, and other instruments connected with the practice of law, and to do the most important duties of an attorney's clerk.—They are occasionally required to write disquisitions on some topic of law, and collect the authorities to support their opinions.—The students are furnished with the use of the elementary books, and have access, at all times, to the college libraries, and to a law library, comprising every important work, both ancient and modern.—The terms for tuition are 75 dollars per annum. The course of study occupies two years, allowing eight weeks' vacation each year. Students are, however, received for a shorter period.—The professor of law will also, for the present, occasionally deliver lectures to the senior class in college, until arrangements are made for a systematic course to be permanently continued.

The Medical Institution.—The instructors of the Medical Institution are a professor of surgery and obstetrics, a professor of chemistry and pharmacy, a professor of the theory and practice of physic, a professor of materia medica, botany, and therapeutics, and a professor of anatomy and physiology.—The lectures commence the last week in October, and terminate the last week in February. During the course, from fifty to one hundred lectures are given by each professor.—The students have access to the lectures on natural philosophy on paying the fees of the course, and they may attend the lectures on mineralogy and geology without charge. The examination for licences and degrees is held immediately after the close of the lectures.—The institution is furnished with a library and an anatomical museum. The students have access also to the library of the college, and to the cabinet of minerals.—The fees, which are paid in advance, are twelve dollars and fifty cents for each course. The matriculation fee and contingent bill are seven dollars and fifty cents. The entire expense of a residence of four months, through the course, including fees and all expenses, except clothing, is from 120 to 150 dollars.

a prospect of liberty and a good living at the death of some worthy consumer of the tithe. Contrasting the university system of Great Britain, under which many individuals are justly said "to spend their lives in polishing a key, without ever unlocking a door," with the less wealthy colleges of America; and keeping in view their moral, as well as literary character, the superiority of the former may be viewed without envy by a people, who in their literary, as well as in their financial pursuits, have as few beggars as they have monopolists.

Having thus briefly noticed the machinery of education in the United States, we shall make a few observations on its results, which will be found to correspond with the character of their causes. We commence with what, with few exceptions, may be termed the lowest kind. Newspaper literature has attained a universality unparalleled in the annals of the art of printing, and leaving, in point of quantity at least, the parent country far behind. There are published in the United States nearly 1,000 newspapers; a large number of them daily, and some of them of very extensive circulation: many of them are entirely political; and certainly we cannot commend their style of conducting their warfare—they appear to mistake virulence for talent: others are purely commercial, filled with advertisements, at the rate of four insertions for a dollar. Some are devoted chiefly to literary and scientific purposes; many of these are highly respectable. A considerable number, some of them of a very large circulation, (the *New York Observer* for instance,) are religious newspapers—a class that has never yet maintained its ground in England, although blessed with a "national religion." There is also another class of newspapers, very different from any in this country—weekly registers of facts connected with trade, commerce, internal improvements, mechanical inventions, as well as the proceedings of congress and the state legislatures—such are *Niles's Register*, *Hazard's Pennsylvania Register*, and *Styles's New York Register*. We apprehend they cannot exist in this country unless the stamp duty were abolished, as they combine many of the features of a newspaper with those of a mechanic and scientific magazine.

The present state of the monthly and quarterly publications indicates a rapid improvement in the taste of the American public. Several attempts were made, some years since, to establish an American Review; but the *North American* has been the first that has maintained its ground; and from its progressive improvement, it has well deserved the honour. It is now become almost as well known in Europe as the *Edinburgh* or *Quarterly*; and some of its articles on European politics are read with a *biting* interest. Two other American Reviews, the *Quarterly* and the *Southern*, both very ably conducted, are also published quarterly. In the field of science, *Silliman's Journal*, published quarterly, at Philadelphia, is well known, and deservedly esteemed. The *American Monthly Review*, recently established, gives short notices

of all new works which issue from the press, either in Europe or America. The New England Magazine, though inferior, is somewhat in the style of our New Monthly. Several other literary periodicals are published in Boston, New York, and Philadelphia; and even the new states in the west are not wholly destitute of periodical literature. Theological periodicals are very numerous; and some of them contain very able critical disquisitions on biblical literature, as well as controversial pieces. The Christian Examiner, and the Unitarian Advocate, published at Boston, are the organs of Unitarianism. The Christian Spectator, published at Newhaven, and the Spirit of the Pilgrims, at Boston, advocate orthodoxy. The Theological and Critical Repository, published at Andover, conducted by Professor Robinson and Dr. Moses Stuart, is perhaps one of the ablest critical works in biblical literature that has ever appeared in the English language. The Baptists, Methodists, Episcopalians, Swedenborgians, Universalists, and other sects, have each one or more periodicals. It might seem impossible that such variety should exist without inducing universal freedom of thought; but this result may be, and to a very large extent is, avoided, by the very simple process of each sect carefully excluding every other publication but its own, for the very sufficient reason that it is the only one which either does or can contain the truth—a reason perfectly similar in its principle to that which induced the Turk to order the destruction of the Alexandrian library.

The principal annual works which issue from the American press are the American Almanac, a most admirable publication, and the Annual Register, which improves every year, both as to matter and arrangement. The pictorial annuals certainly exhibit no advanced state of the arts either of painting or engraving; and, indeed, are more discreditable in the former point than in the latter: for most of the designs are taken from English prints, and this (unless the taste of the American people is founded upon the principle that a painter is to have "no honour in his own country") most unnecessarily, as the scenery of the Hudson, the Potowmac, and the Ohio, not to mention a thousand other streams, and the pencils of Cole and other American artists, would produce as interesting an annual, at any rate, as borrowed prints, which, as invasions of copyright, render the works not only unpalatable, but unsaleable in Great Britain.

With respect to original works on general literature, if America has less to boast than Europe, she has still less to be ashamed of. If her genius has not been employed to enliven the fancy, neither is it devoted to the pollution of the heart. But the writings of Irving and Cooper have forced their way through the prejudice which exists against the productions of our former colonies, and are too well known and too highly esteemed to permit any encomium from our pen, without a violation of propriety. It is true that their chief writers have sought the richer reward which the European market affords; but the genius is no less American because exercised on

this side the Atlantic, nor must our readers suppose that the claims of America to literary merit rest on two or three names alone. If a lucid and manly style is worthy of commendation, that of Franklin, and of Washington, has rarely been surpassed; if eloquence be a mark of genius, Henry Lee, Patrick Henry, and others, may well lay claim to the wreath of fame.

We are somewhat surprised to find the dramatic writings of the Americans to be so numerous. The editor of the *American Quarterly* states, that "he has actually in his possession nearly sixty American dramas, consisting of tragedies, comedies, operas, melo-dramas, and farces;" and he adds, that after a duly diligent perusal of them, he can venture to affirm, that "they are quite equal to the productions of the present race of London playwrights which are regularly brought out at our theatres, and to which the certificate of having been performed a hundred nights, with unbounded applause, gives all the efficacy of a quack medicine." Nor have the Americans been destitute of poetic efforts; not to mention living poets, Hopkins, Dwight, Barlow, Humphreys, Hopkinson, Trumbull, Freneau, Sewell, Linn, Lathrop, Paine, Prentiss, Boyd, Clifton, Isaac Story, Allen, Osborn, Spense, and Brainerd, have contributed many powerful and even refined effusions of the poetic muse. It would, however, occupy a volume to give a brief account of American writers; and it is a work which we hope will be taken up by some able pen, that the ignorance which exists on this subject may, at least, be left without excuse.

We shall close our remarks in American literature with some very just observations by a recent American writer,* which place in a correct point of view the causes which have hitherto operated to retard the progress of literary refinement in the United States, while they at the same time vindicate the mental elements of their national character. "The American intellect possessing great compass, strength, and flexibility, united to a clear perception of fitness, is equal to any exigency in human affairs, and can adapt its pursuits to every change that may occur, and its measures to every new demand that may be made on it. This is attested by the great improvements it has made in every branch of knowledge that is called for in the country, and by which an honourable independence can be gained. Our position to this effect might be confirmed by a reference to the elevated condition of the liberal professions among us, and the multitude of inventions in the mechanical arts. Knowledge on these subjects, being needed in the present state of society, can be rendered profitable to its possessors, by an immediate application of it to practical purposes. It is therefore eagerly sought after, and rapidly attained. And the same will be true of every other branch of knowledge, as soon as it shall be called for under the certainty of a suitable reward. No matter whether it belongs to science, arts, or letters; let a

* *New England Magazine*, vol. i. p. 479.

market for it be opened, and American genius will soon supply it. But little has been hitherto done by the public to encourage American literature. It has been even discountenanced, by an unreasonable preference of that from abroad. We call the preference unreasonable, because the foreign articles preferred have been often inferior to the domestic ones that were undervalued. The consequence has been what every one who reflected on the subject anticipated. Polite literature has been comparatively but little cultivated among us, except as a matter of individual taste and amusement. We have had but few writers by profession, because neither honour nor riches awaited the pursuit. Our mechanics became wealthy by labouring in their vocations, while our scholars might have starved in the midst of the most exquisite productions of their pens. The reason is obvious. There was a great demand for the implements of agriculture and some of the arts, but a very limited one for poetry, or any other kind of fine writing. The former was adapted to the state of society, while the latter was out of time. Necessaries and comforts, not luxuries or mere delicacies, were first to be provided. But polite literature is a luxury, and will not therefore be encouraged, because it cannot be indulged in, except as a concomitant of wealth and leisure. During this condition of things, but few literary productions appeared; and even those that did appear were not of the highest order, or in the most finished style, because they had not been sufficiently elaborated: and to become a good writer is the work of years, under close industry, and the strictest attention to style and manner. Such was the disheartening state of things: yet it has already appeared that, notwithstanding its power to blight and wither, it did not render American genius unproductive. Beneath gloom and winter the blossoms opened, and the fruit became mature and excellent, far beyond what there was ground to expect. But of late, the sentiments of society have changed, public taste and judgment are improved, and a new era is evidently opening on American literature. Foreign productions are not, as formerly, almost indiscriminately approved, nor those of our own writers rejected, merely because they are not the growth of a distant hemisphere. Readers examine and reflect, before they feel themselves authorized to decide. Their decision, therefore, is founded on principle, and is usually correct. As the consequence of this change in public feeling, American works are sought for and purchased to a much greater extent than in former years. Let this state of things continue; or rather, let it improve in the requisite degree; let fine specimens of American composition be rewarded with honour and profit, and they will soon be abundantly produced. Let prompt and liberal purchasers be found, and the market, as in other cases, will be well supplied. The Souvenirs, Tokens, and novels of the day, with many other productions of taste, give proof of this. We do not say that Byrons, and Sir Walters, and Moores, will immediately spring up among us. Authors of that class appear but seldom. But we do say that we shall soon have writers

equal to any Europe contains, except, perhaps, such prodigies as we have named; and in time we shall equal them. The same genius that gave renown to our fathers, through all the eventful periods of our history, is still the cherished inheritance of their descendants."

The progress of the arts in the United States has been in proportion to their bearing on the essential comforts of life. Thus, in the mechanical arts they are inferior to no nation of the globe, as their ships, steam-boats, and engines of all kinds, bridges, canals, and rail-roads, abundantly testify. Architecture has recently received a far greater portion of attention than formerly; those who devote their attention to this subject generally making the tour of Europe, to inform their minds and cultivate their taste. Many of their recent state-houses and churches indicate the improved condition of the art, and afford just ground for pleasing anticipations of the future. We cannot give our readers a better idea of the domestic architecture of a respectable house in the cities of the United States, than by quoting the description which Mr. Cooper has given of an habitation of an American in the very best society, who is in easy circumstances, of extensive and high connexions. "The house in question occupies, I should think, a front of about thirty-four feet on the Broadway, and extends into the rear between sixty and seventy more. There are no additions, the building ascending from the ground to its attics in the same proportions. The exterior necessarily presents a narrow, ill-arranged façade, that puts architectural beauty a good deal at defiance. The most that can be done with such a front is to abstain from inappropriate ornament, and to aim at such an effect as shall convey a proper idea of the more substantial comforts and of the neatness that predominate within. The building is of bricks, painted and lined, and modestly ornamented, in a very good taste, with caps, sills, cornices, &c. in the dark red freestone of the country. The house is of four stories; the lower, or *rez de chaussée*, being half sunk, as is very usual, below the surface of the ground, and the three upper possessing elevations well proportioned to the height of the edifice. The door is at one of the corners of the front, and is nearly on a level with the windows of the first floor, which may commence at the distance of about a dozen feet above the pavement of the street. To reach this door, it is necessary to mount a flight of steep, inconvenient steps, also in freestone, which compensate, in a slight degree, for the pain of the ascent, by their admirable neatness, and the perfect order of their iron rails and glittering brass ornaments. The entrance is into a little vestibule, which may be some twelve feet long, by eight in width. This apartment is entirely unfurnished, and appears only constructed to shelter visitors while the servant is approaching to admit them through the inner door. From the vestibule, the entrance is into a long, narrow, high, and handsome corridor, at the farther extremity

of which are the principal stairs. This corridor, or passage, as it is called here, is carpeted, lighted with a handsome lamp, has a table, and a few chairs; and, in short, is just as unlike a French corridor as any thing of the sort can very well be. From this passage you enter the rooms on the first floor; you ascend to the upper, and descend to the lower story, and you have egress from and ingress to the house by its front and rear. The first floor is occupied by two rooms that communicate by double doors. These apartments are of nearly equal size, and, subtracting the space occupied by the passage, and two little china closets that partially separate them, they cover the whole area of the house. Each room is lighted by two windows; is sufficiently high; has stuccoed ceiling, and cornices in white; hangings of light, airy, French paper; curtains in silk and in muslin; mantel-pieces of carved figures in white marble; Brussels carpets; large mirrors; chairs, sofas, and tables, in mahogany; chandeliers; beautiful, neat, and highly-wrought grates in the fire-places, of home work; candelabras, lustres, &c., much as one sees them all over Europe. In one of the rooms, however, is a spacious, heavy, ill-looking sideboard, in mahogany, groaning with plate, knife and spoon cases, all handsome enough, I allow, but sadly out of place where they are seen. You ascend, by means of the stairs at the end of the passage, into what is here called the second story, but which, from the equivocal character of the basement, it is difficult to name correctly. This ascent is necessarily narrow, crowded, and inconvenient. The beautiful railings in mahogany and brass, and the admirable neatness of every part of an American house of any pretension, would serve to reconcile one to a thousand defects. As respects this cardinal point, I think there is little difference between the English and the Americans, at least, so far as I have yet seen the latter; but the glorious sun of this climate illumines every thing to such a degree as to lend a quality of brightness that is rarely known in Britain. On the second floor (or perhaps you will get a better idea if I call it the first) of the house of Mr. —, there is a spacious saloon, which occupies the whole width of the building, and possesses a corresponding breadth. This apartment, being exclusively that of the mistress of the mansion, is furnished with rather more delicacy than those below. The curtains are in blue India damask, the chairs and sofa of the same coloured silk, and other things are made to correspond. The library of the husband is on the same floor, and between the two is a room which is used as a bed-chamber. The third story is appropriated to the sleeping-rooms of the family; the attic to the same purpose for the servants; and the basement contains a nursery and the usual offices. The whole building is finished with great neatness, and with a solidity and accuracy of workmanship that it is rare to meet with in Europe, out of England. The doors of the better rooms are of massive mahogany; and wherever wood is employed, it is used with great taste and skill. All the mantel-pieces are

marble, all the floors are carpeted, and all the walls are finished in a firm, smooth cement."^f

Of the fine arts, the Americans have been less deficient in painting than any other; and, we apprehend, but few years comparatively will transpire before they attain a high character in this respect. Symbert, who went out with Dean Berkley, in 1728, was decidedly a man of genius, though a self-taught artist. He settled in Boston, where he was highly esteemed. His head of Cardinal Bentivilio, and of Dr. Mayhew, are among the first of fine portraits. Copley, the father of Lord Lyndhurst, the late lord-chancellor, appears to have been a pupil of Symbert, and flourished at Boston after Symbert's death. At the period of the revolution, after the battle of Lexington, he left America for England, where he had the good fortune to be as acceptable as he had been in his native country. Sir Benjamin West was a native of America, and first discovered his genius there. His talents are too well known to require our comment. Among the most distinguished American painters must be ranked Gilbert Stuart: he was a native of Rhode Island, and, after leaving college, made up his mind to follow painting as a profession; and not being able to find a proper master in America, Copley being then gone to England, he embarked for this country, in 1775, and put himself under the instruction of Mr. West, who was then in the zenith of his fame. Stuart soon became a favourite pupil of his master, and graduated from his school with a high reputation as a portrait painter: he ranked second to no one in London, but Sir Joshua Reynolds. While in the metropolis, he had the good fortune to become acquainted with Burke, Fox, Sheridan, and many of their associates. These men were not only patrons of the arts, but the friends of artists. He painted several of them in a fine style, which spread his fame far and wide. They were anxious to possess and to give to the world a correct likeness of Washington, and they induced Stuart to visit the United States for that purpose. When he arrived at the city of Washington, the great man had retired from all office, and was in private life at Mount Vernon. When he sat to Stuart, as the latter has often stated, an apathy seemed to seize him, and a vacuity spread over his countenance, most appalling to the painter. Stuart was, however, not easily overcome; he made several fruitless attempts to awaken the heroic spirit in him, by talking of battles, but in vain. He next tried to warm up the patriot and sage, by turning the conversation to the republican ages of antiquity;—this was equally unsuccessful. At length the painter struck on the master-key, and opened a way to his mind, which he has so happily transferred to the canvass with the features of his face. In the whole of this picture, in every limb, as well as feature, the martial air of the warrior chief is admirably mingled with the dignity and majesty of the statesman

^f Notions of the Americans, vol. i. p. 194—199.

and sage. Stuart tarried a year or two in the city of Washington, and, during that time, painted John Adams, Thomas Jefferson, Mr. Madison, and many other distinguished men of America. He removed from Washington to Philadelphia, which was then greatly in advance of the other cities and great towns in the United States, in every branch of the fine arts. Here, too, he was a favourite in society, as well as in his profession. His next remove was to Boston, where he resided during the remainder of his life. For several years after his coming to Boston, he was overwhelmed with business: many had to wait months for an opportunity of sitting to him; and, even in his latter years, he frequently had more calls than he could answer.

Colonel John Trumbull, who is now living, was the contemporary of Stuart and Johnson, an acquaintance of Copley's, and a student with West. His life has been more full of incident than those of his brother artists, for he has been soldier, politician, and traveller, as well as painter. In him the love of his art was early developed; it began in the nursery: before he was prepared to enter college, he had painted several pictures; and while at Cambridge, in his leisure moments, he indulged himself in painting. Some of these efforts, before he had received a single lesson, were seen by Copley, who bestowed upon them a cordial smile of approbation. He then had but a faint expectation of making the art his main pursuit, and he subsequently entered on a military career; and, in the fall of 1776, he was appointed adjutant-general of the northern army. While in this office, he thought himself superseded, which his pride could not brook; and he resigned his commission, and returned to his native state. Having determined to become an artist, he made his way to England, to place himself under the guidance and instruction of his countryman, Mr. West, then at the head of painters in England. He had sheathed his sword, and shut his ears to all political strife, and was advancing his knowledge in the bosom of the arts, when, on the British ministry learning the fate of the unfortunate André, in 1780, he was seized and imprisoned in the tower, on the ground of being an American officer of the same rank as André; and, for some time, his life was considered in danger. During his imprisonment, Fox, Burke, and the leaders of the opposition, often visited him. At length Trumbull was released on bail; but an order instantly followed for his departure forthwith. He went to France, and from thence returned to America. During this difficulty, West was the warm and unshaken friend of his pupil, and proved to him that his virtues were as exalted as his talents, that his heart was as true and steady as his hand. Colonel Trumbull returned to England after the peace of 1783, and was most warmly received by his old friends, and patronized by them in his profession. During this visit he painted the *Sortie of Gibraltar*—a production which Horace Walpole pronounced the best that had ever been executed on this side the Alps. After his return to America,

he was employed in painting the four historical pieces which adorn the capitol: the subjects are—The Declaration of Independence, the Surrender of Burgoyne, the Taking of Cornwallis, and Washington resigning his Commission. It is much to be regretted, that the pencil of this veteran has not been employed to perpetuate other signal events of the illustrious struggle of the Americans for independence.^g

Several institutions have been formed for the encouragement of the arts. One of them, the National Academy of Design, in New York, has furnished opportunity for some very judicious remarks in the *North American Review*. The editor resents the charge brought by one of the advocates of the institution, Mr. Morse, that the Americans are neglectful of their own artists, and observes, that the only way in which a correct taste can be formed is, by placing a due value on the productions of the old masters, as well as on the productions of other countries. The writer adds, "That our country will equal the contemporaneous works of others, we are well inclined to believe, though we cannot but see in our peculiar situation peculiar disadvantages. But we can hardly hope that the masterpieces of ancient art are ever to be surpassed, here or in Europe. The forms and occupations of society are growing every day less favourable to the highest efforts of the imagination. We live in an age of utility. Every thing which tends directly to improve the physical condition of man, and to develop his reasoning and active powers, is cultivated with zeal and success. The most stubborn obstacles of nature are yielding to new and tremendous enginery. What were her impassable barriers, have become highways; and the fabled works of the giants are surpassed by the power of knowledge. Education is sent abroad into all classes of men, to make them feel their strength and use their reason. All this renders the world populous, prosperous, and happy; but it is at the expense of much that we love, and much that elevates and refines the feelings. In this cultivation of the reason, the imagination loses its power. Eloquence, poetry, painting, and sculpture, do not belong to such an age; they are already declining, and they must give way before the progress of popular education, science, and the useful arts. It may be, that when the great work about which the world is now occupied is accomplished, a new school of art, of proportionate grandeur, may arise; but we fear that its best days are past. We cannot but rejoice at this progress of society; still we must wish that the good it brings might be purchased without so great a sacrifice. We would not withhold the light of knowledge for fear it should dissipate the most poetical phantoms of the imagination; but we may be allowed to look back on their old haunts, laid open to the vulgar day, with some feelings of regret."^h

^g Knapp's *Lectures on American Literature*, vol. i. pp. 203, 203.

^h *North American Review*, vol. xxvii. p. 218.

Of the various subjects which present themselves in taking a view of the state of society of any country, we deem the *manners* of its inhabitants to be the most difficult; and of all the countries of which an Englishman could undertake to form an impartial opinion, the North American republic is the most embarrassing. We are fully aware that this doctrine is far from according with that of some of the first critics of the day, who never feel more at home than when indulging in flippant and ignorant, but to them, and as they suppose to their readers, agreeable animadversions on the "barbarous manners" which "blighting democracy" has spread over the whole surface of society in the United States. If, however, they would reflect for a moment, that no one nation can be an authorized judge of another on such points, since no international standard has been yet agreed upon—that what is viewed by the polished and refined of one country as barbarous, is received in a very opposite light by the same class, (with regard to that appellation,) in another—they might be induced to hesitate before they assumed a superiority, which, however gratifying it may be to themselves, can carry no conviction, and may justly inspire, not only resentment, but contempt. Not professing to have a knowledge of this subject by personal experience, we have felt it our duty (and an irksome one it has proved) to become acquainted with, we believe, nearly all the statements of travellers in the United States for the last thirty years; and the impression it has left on our minds is that of astonishment, that such a mass of contradiction and absurdity could have been produced on any given subject: nor do we think it would have been possible, had not one of the leading periodicals of the day encouraged such publications, to their too great honour and its own disgrace, by affording the most contemptible of them a prominence it awards to no other publications of such a character in any other department of literature.¹

¹ These remarks were thought justified by the eagerness which the periodical referred to had recently manifested in condescending to accept the favour of the proof-sheets of two 12mo. volumes on the "Domestic Manners of the Americans," by a Mrs. Trollope. The "whipper-in" of the Quarterly has usually been very unfortunate in committing the review of works on the United States to persons as ignorant of facts, as they have been bold in assertion; a circumstance perhaps arising from the contempt in which "our late colonies" are still held, so that they are committed to the charge of the most inferior members of the conclave; or possibly the articles may have been written by an underling at half-price, while the principal has been in attendance at "Charles-street." However this may be, in one of their late reviews, while attempting to enlighten the public on the subject of the American navy, they are pleased to inform them, that, for some sinister purpose of deception, "the order of congress for building their ships limited their size to that of seventy-fours;" whereas the law, or order as he pleases to term it, was just the contrary—"that the president of the United States is hereby authorized to cause to be built nine ships, to rate *not less* than seventy-four guns each:"—and in the number just published, in the prefatory remarks to the review of the work which contains "exactly the title-page they have long wished to see," we are gravely informed, as a most important fact, that "in fully four-fifths of the settled portion of the United States, the labouring population consists of slaves," which is just as true as that "fully four-fifths" of the talent of England is connected with the Quarterly Review, Lest we should by possibility mistake, in a few lines we are again informed that it is "an *undoubted fact*, that over the most fertile, and, in other respects, the most wealthy portion of the Union, the working

In one principal aspect, manners may be said to consist in the external mode in which the several duties and relations of social life are discharged. We shall speak, therefore, first of that which exists between parent and child. It has been affirmed by several travellers, that the effect of republican notions on this relation has been to destroy the authority on the part of the parent, and respect and obedience on that of the child. Mr. Bristed, Mr. Janson, and others, affirm this to be their opinion. We believe, however, if there are some families in England where more authority is exercised than in America, there are many others where there is less; and that the average of obedience is equal while it is more uniform and rational.

The relation of husband and wife appears to be sustained with a fidelity unknown (as a national characteristic) in European states. Married females, it is admitted by all, even by Mrs. Trollope, are either engaged in their domestic duties, or in works of benevolence. We shall present our readers with her description of the life of a lady of "a senator and lawyer of the highest repute;" only premising that some of the points at which she aims her sarcasm meet with our admiration and approval:—"She has a very handsome house, with white marble steps and door-posts, and a delicate silver knocker, and door-handle; she has very handsome drawing-rooms, very handsomely furnished,—there is a sideboard in one of them, but it is very handsome and has very handsome decanters and cut-glass water-jugs upon it; she has a very handsome carriage, and a very handsome free black coachman; she is always very handsomely dressed; and, moreover, she is very handsome herself. She rises, and her first hour is spent in the scrupulously nice arrangement of her dress; she descends to her parlour, neat, stiff, and silent; her breakfast is brought in by her free black footman; she eats her fried ham and her salt fish, and drinks her coffee in silence, while her husband reads one newspaper and puts another under his elbow;

population consists of negro slaves!"* Now, as out of thirteen millions of inhabitants there happen to be about two millions of slaves, it will follow that, if four-fifths of the working class are slaves, at least ten millions out of thirteen do not work in America! and that, with the exception of the unfortunate blacks, there are little more than half a million of persons only who can be numbered among the "working population;" consequently, that the remaining nearly ten and a half millions have that special feature of aristocracy and gentility—that they do not work for their living. We can readily conceive how such a writer may conscientiously affirm that "he has read Mrs. Trollope's book with *instruction*," and that he could bestow upon it "high praise." We trust we shall be deemed to have established the grave charge of ignorance, and of boldness too. Of the latter quality (tinged, indeed with the former also) we must give one more example:—"the total absence of a national debt" (which is not a fact) is affirmed to be an evil!† We apprehend, that after these specimens, and more might be added, the opinions of the writer in the *Quarterly* will not add much weight to Mrs. Trollope's book: we shall therefore leave the enamoured reviewer, and this "*lady* of sense and acuteness," except so far as their observations may illustrate some portions of the subject under consideration.

* *Quarterly Review* for March, p. 41.

† "Many persons consider that, as to this point of dissimilarity, the advantages lie entirely with the Americans. We are not of that opinion."—*Quarterly Review*, p. 44.

and then, perhaps, she washes the cups and saucers. Her carriage is ordered at eleven; till that hour she is employed in the pastry-room, her snow-white apron protecting her mouse-coloured silk. Twenty minutes before her carriage should appear, she retires to her chamber, as she calls it, shakes and folds up her still snow-white apron, smooths her rich dress, and with nice care, sets on her elegant bonnet, and all the handsome *et cetera*; then walks down stairs, just at the moment that her free black coachman announces to her free black footman that the carriage waits. She steps into it, and gives the word, 'Drive to the Dorcas Society.' Her footman stays at home to clean the knives, but her coachman can trust his horses while he opens the carriage door, and his lady, not being accustomed to a hand or an arm, gets out very safely without, though one of her own is occupied by a work-basket, and the other by a large roll of all those indescribable matters which ladies take as offerings to Dorcas societies. She enters the parlour appropriated for the meeting, and finds seven other ladies, very like herself, and takes her place among them; she presents her contribution, which is accepted with a gentle circular smile, and her parings of broad cloth, her ends of ribbon, her gilt paper, and her minikin pins, are added to the parings of broad cloth, the ends of ribbon, the gilt paper, and the minikin pins, with which the table is already covered; she also produces from her basket three ready-made pincushions, four ink-wipers, seven paper matches, and a pasteboard watch-case; these are welcomed with acclamations, and the youngest lady present deposits them carefully on the shelves, amid a prodigious quantity of similar articles. She then produces her thimble, and asks for work; it is presented to her, and the eight ladies all stitch together for some hours. Their talk is of priests and of missions; of the profits of their last sale, of their hopes from the next; of their doubt whether young Mr. This, or young Mr. That should receive the fruits of it to fit him out for Liberia; of the very ugly bonnet seen at church on Sabbath morning, of the very handsome preacher who performed on Sabbath afternoon, and of the very large collection made on Sabbath evening. This lasts till three, when the carriage again appears, and the lady and her basket return home: she mounts to her chamber, carefully sets aside her bonnet and its appurtenances, puts on her scolloped black silk apron, walks into the kitchen to see that all is right, then into the parlour, where, having cast a careful glance over the table prepared for dinner, she sits down, work in hand, to await her spouse. He comes, shakes hands with her, spits, and dines. The conversation is not much, and ten minutes suffices for the dinner; fruit and toddy, the newspaper and the work-bag, succeed. In the evening the gentleman, being a *savant*, goes to the Wister society, and afterwards plays a snug rubber at a neighbour's. The lady receives at tea a young missionary and three members of the Dorcas Society, and so ends her day."^k And who, we say, is most happy—this lady

^k Domestic Manners of the Americans, vol. ii. pp. 72—75.

at Philadelphia, or one in Marylebone, who, be the morning ever so beautiful, dares not be so vulgar as to order her carriage before two in the afternoon, then drives in Hyde Park, to be quizzed by all the dandy rakes that infest the place, and in the evening goes to Drury Lane, weeps at a tragedy, instead of compassionating real distress, and then remains till midnight to witness performances which nine American children out of ten would be ashamed to waste their time in? Let Mrs. Trollope, and her pious friend the Quarterly Review, who is so overwhelmed with the "disgusting and mischievous exhibition" of an American revival of religion, solve the question.—If domestic duties, and the claims of benevolence, are thus attended to by those of high repute, we need not say that in the less wealthy class they are equally so. In all countries, *they* are allowed to be so unfashionable as to be virtuous. "It should be remembered," says the author of *Notions of the Americans*, "that when an American girl marries, she no longer entertains the desire to interest any but her husband. There is perhaps something in the security of matrimony that is not very propitious to female blandishments, and one ought to express no surprise that the wife who is content with the affections of her husband should grow a little indifferent to the admiration of the rest of the world. One rarely sees married women foremost in the gay scenes. They attend, as observant and influencing members of society, but not as the principal actors. It is thought that the amusements of the world are more appropriate to the young, who are neither burdened nor sobered with matrimonial duties, and who possess an inherent right to look about them in the morning of life, in quest of the partner who is to be their companion to its close."

One of the differences between European and American manners which strikes the traveller, especially the English, most forcibly relates to the independence of servants of all kinds. We believe that antipathy to domestic service is carried to an unjustifiable excess; and for once the Quarterly speaks the truth, with but little exaggeration, when it says, "One of the greatest drawbacks to comfort in America appears to consist in the difficulty—almost impossibility—of getting good servants. There exists throughout the country such an inveterate prejudice against menial service, that nothing short of absolute want, or the strong desire of procuring some favourite object for which the funds are not forthcoming, will induce man, woman, or even child, to condescend to this sort of occupation." It is perfectly amusing, however, to perceive how the writer exhibits the superior condition of servants in this country—he surely must suppose that his readers are ignorant of themselves and of each other, as well as of the affairs of the United States, when he thus writes: "It is in vain to reason with an American on this subject, or to endeavour to show him that if a servant makes his bargain, and does his duty, he is, to all intents and purposes, as independent as his master. It is true that this holds good, in its fullest

extent, only in a country like England, where, happily for the poorer classes, the society is divided into ranks, of each of which the rights and privileges are distinctly known, and resolutely maintained. We say, decidedly, that this classification is fortunate for those who are less—aye, or least wealthy, as it affords by far the best security they could have against the encroachments of power. Let any gentleman in England treat his servant unjustly or cruelly, and see what a storm he will soon raise about his ears. If, on the other hand, he forgets what is due to his own rank, and even, with a kindly intention, takes any liberty with his servant, he is instantly checked for what, though it be not so called, is considered presumption. The truth is, neither master nor man can venture, with us, to quit his own proper line of duty; and as for obligation, that is strictly mutual, and finds its balance most accurately adjusted by the payment of wages.” There are a few, but very few, masters in England who treat their *domestic* servants on these principles: we should say from our own observation, that servants in England are treated much more haughtily than they are in France, and, from competent testimony we may add, than in any other nation in Europe, except in the dominions of the autocrat of the north. For our own parts, we can see no reason why a domestic servant should not as civilly be asked to perform what may be required, as any tradesman who may be employed; nor why he should not be thanked when he has done his duty willingly. It appears to us, that the disagreeable feelings of the English in the United States, arise, in great measure, from the fact, that each class of English society, from the duke to the dustman, is infected with a most contemptible infusion of aristocratic feeling: none so much so, perhaps, as the domestic servants in high life themselves; and from whence they derive the infection is sufficiently manifest. At the same time, we willingly admit that there are more exceptions to this observation among the old nobility than among any other class, and, we may add, fewer among the uneducated, who, by successful traffic, have raised themselves to civic honours.

Friendly and social intercourse, both of a private and public character, exists in the United States in a far higher degree than the present state of Great Britain will now permit to its inhabitants; and the habit of rising early in the morning, and leaving off business early in the evening, tends very much to promote social intercourse, without infringing on other engagements. It is true, in that intercourse, some practical good is generally kept in view; there is often more introduced of mutual improvement in literature or sciences than would please the genteel youth of England, who leave such matters to mechanics’ institutions: and, perhaps, there is more of religion in many of their social meetings than would be agreeable to many of the members of our churches, who, whatever their profession may be, practically appear to consider religion a species of hebdomadal lunacy, the fit asylum for which is a church or chapel: on one day it is all-important—of eternal moment—(the orthodox Quarterly

admits this); but on all other days, to think—to feel—to speak—or read about it, especially in company, is “disgusting,” “mischievous,” “profane,” not to say, “blasphemous,” with the Quarterly; and “imprudent,” “unseasonable,” “injudicious,” in the estimation, or, at any rate, inconsistent with the practice, of a large proportion of professing christians.

With respect to “the freedom of intercourse which is admitted between the young of the two sexes in America, and which undeniably is admitted with impunity, “it is to me,” says Mr. Cooper, “perfectly amazing. That the confidence of parents is sometimes abused in America, is, probably, just as true as it is that their watchfulness is sometimes deceived in Europe; but the intelligence, the high spirit, and the sensitiveness of the American, (who must necessarily be a party to any transgressions of the sort,) on the subject of female reputation, is, in itself, sufficient proof that the custom is attended with no general inconvenience. The chief reason why the present customs can exist without abuse, is no doubt owing to the fact that there is no army, nor any class of idlers, to waste their time in dissolute amusements. Something is, also, due to the deep moral feeling which pervades the community, and which influences the exhibition of vice in a thousand different ways. The language of gallantry is never tolerated: a married woman would conceive it an insult, and a girl would be exceedingly apt to laugh in her adorer’s face. I do not mean to say that idle pleasantries, such as are mutually understood to be no more than pleasantries, are not sometimes tolerated; but an American female is exceedingly apt to assume a chilling gravity at the slightest trespass on what she believes, and, between ourselves, rightly believes, to be the dignity of her sex. Here, you will perceive, is a saving custom, and one, too, that it is exceedingly hazardous to infringe, which diminishes one half of the ordinary dangers of the free communication between the young of the two sexes. There is another peculiarity in American manners that should be mentioned: the women of America, of all classes, are much more reserved and guarded in their discourse, at least in presence of our sex, than even the women of the country whence they derive their origin. I think, at all events, no intelligent traveller can journey through this country without being struck by the singular air of decency and self-respect which belongs to all its women, and no honest foreigner can deny the kindness and respect they receive from the men. There is something repugnant to the delicacy of American ideas in permitting a lady to come, in any manner, in contact with the world. A woman of almost any rank above the labouring classes is averse to expose herself to the usual collisions, bargainings, &c., of ordinary travelling. Thus, the first thing that an American woman requires to commence a journey, is a suitable male escort; the very thing that with us would be exceptionable.

“Marriages in the United States,” says Mr. Bristed, “are earlier than in Europe,

there being no constraint by statute, and no fear of not being able to maintain a family in so young a country, whose extensive territory offers an abundant provision to every species of industry, when regulated by discretion. Any clergyman of any sect, or any justice of the peace, may marry any couple without asking any questions. For all the purposes of connubial happiness, early marriages are best fitted, because the youthful pair have time, and opportunity, and power, gradually to mould themselves to each other's temper and disposition and habits and manners; whereas, later marriages require much good temper, good sense, and, above all, confirmed domestic habits on both sides, to render the union happy; because the character of both parties is already fixed, and not capable of that flexible adaptation to the circumstances of life, so characteristic of ardent and ingenuous youth. Marriages in the United States are not only contracted at an early age, but, in general, from disinterested motives. Indeed, owing to our social institutions and habits, individual fortunes are seldom sufficiently large, compared with the overgrown family opulence of Europe, to induce mere money matches, where the estates, not the parties, are united. There is no fear with us of the proverb, so commonly levelled in England against sentimental affection, that 'love in a cottage generally ends in a cottage without love;' because any man, in any calling, if he be industrious, honest, and careful, may make ample provision for his wife and children."

The Americans are not without opportunities of exercising their social feelings upon an extended scale. Their religious associations are certainly the chief scene in which these affections find objects on which to fix themselves. Indeed, in the west, especially at Cincinnati, the people are, according to Mrs. Trollope, completely without amusement. Billiards and cards are forbidden by law—they have no public balls, except a few at Christmas; and, in fact, it would appear that the only chance of social enjoyment for the good lady was at a prayer-meeting, which she appears to view with as much horror as she would a select party of convicts. The following is her mode of giving the testimony of an enemy to a most pleasing fact: "It is in the churches and chapels of the town that the ladies are to be seen in full costume; and I am tempted to believe that a stranger from the continent of Europe would be inclined, on first reconnoitring the city, to suppose that the places of worship were the theatres and cafés of the place. No evening in the week but brings throngs of the young and beautiful to the chapels and meeting-houses, all dressed with care, and sometimes with great pretension: it is there that all display is made, and all fashionable distinction sought. The proportion of gentlemen attending these evening meetings is very small, but often, as might be expected, a sprinkling of smart young clerks makes this sedulous display of ribands and ringlets intelligible and natural. Were it not for the churches, indeed, I think there might be a general bonfire of best bonnets, for I never could discover any other use for

them. The ladies are too actively employed in the interior of their houses to permit much parading in full dress for morning visits. There are no public gardens or lounging-shops of fashionable resort; and were it not for public worship, and private tea-drinkings, all the ladies in Cincinnati would be in danger of becoming perfect recluses." Notwithstanding these observations of Mrs. T. it is a fact that the theatres in the eastern cities are well attended; but it is also a fact, that they are very differently conducted from the theatres of London, and that certain parties who are here admitted free, as attractions to the theatre, would, even in New York, if known, not be suffered to enter the house: and yet we believe the finances of American theatres are generally tolerably prosperous, while those of the great theatres of London are in utter ruin.

Respecting dress, Mr. Cooper says, "I think the secondary classes in this country dress more, and those of the upper less, than the corresponding castes in Europe. The Americans are not an economical people in one sense, though instances of dissolute prodigality are exceedingly rare among them. A young woman of the middling classes, for instance, seldom gives much of her thoughts towards the accumulation of a little dowry; for the question of what a wife will bring to the common stock is agitated much less frequently here than in countries more sophisticated. The facility with which the fabrics of every country in the world are obtained, the absence of care on the subject of the future, and the inherent elevation of character which is a natural consequence of education, and a consciousness of equal rights, cause all the secondary classes of this country to assume more of the exterior of the higher, than it is common to see with us. The exceptions must be sought among the very poorest and most depressed members of the community. The men, who are no where-so apt at imitation as the other sex, are commonly content with garments that shall denote the comfort and ease of their several conditions in life; but the females are remarkable for a more aspiring ambition. Even in the country, though rusticity and a more awkward exterior were as usual to be seen, I looked in vain for those marked and peculiar characteristics of dress and air that we meet in every part of Europe. In but one instance do I remember to have seen any number either of men or women whose habiliments conveyed an idea of provincial costume. The exception was among the inhabitants of a little Dutch village, in plain view of this city, who are said to retain no small portion of the prejudices and ignorance of the seventeenth century, and whom the merry author of the burlesque history of New York accuses of believing they are still subject to the power of the United Provinces. As respects the whole of New England, I saw some attempt at imitating the fashion of the day, in even the humblest individual, though the essay was frequently made on a material no more promising than the homely product of a household manufacture. In the towns, the efforts were, of course, far more successful; and I should cite the union of

invidiousness of air with conformance to custom as a distinguishing feature of the women of the lower classes here. As I stood regarding the mixed assembly before me, I had the best possible illustration of the truth of what I will not call the levelling, for elevating is a far better word, effects of the state of society, which has been engendered by the institutions and the great abundance of this country. Of some three thousand females present, not a sixth of the whole number, perhaps, belonged to those classes that, in Europe, are thought to have any claims to compose the *élite* of society: and yet so far as air, attire, grace, or even deportment, were concerned, it must have been a sickly and narrow taste indeed that could have taken exceptions."

The manners of the Americans, in the lighter sense of the term, may be truly stated to be a medium between the vulgarity of the lower orders, and the refinement of the highest class of European society; and there are some features of the latter as desirable to be omitted as of the former. The blustering scion of an aristocratic house may be excused for terming the manly independence of the Americans impertinence; and for dying of a broken heart, because, after swearing at a Yankee, as the southern democrats do at their negroes, he is left to carry his trunk a mile through the broiling sun himself. We know of no obligation that rests on a porter to carry a marquess's trunk, if it does not suit his convenience; but perhaps a majority of the house of lords would be of opinion, that a month at the tread-mill would be a fit compensation to the porter for such an exercise of the freedom of the locomotive faculty. We make these observations not from the slightest disrespect to the aristocracy of England, but only to exhibit plainly some points in which the ideas of the English and Americans come in rather violent contact—doubtless materially to the disadvantage of the latter. There are some points, however, which do not admit of so ready a solution as that of the spirit of independence. One circumstance peculiarly felt by most travellers, especially in the eastern states, is a coldness of manner, which, to a European, appears like indifference or apathy. We have felt the unpleasantness of it ourselves, with one or two exceptions only, in the American gentlemen to whom we have had the pleasure of being introduced: we have, however, invariably found it to be mere manner; and consequently, by being accustomed to it, all unpleasant feelings cease to be excited. There is, however, one custom among the Americans, to which we apprehend English travellers, or emigrants, must feel an insuperable repugnance—the habit of chewing tobacco and spitting, which, though diminishing, still prevails to a considerable extent through the middle class of society. We must join in the unqualified condemnation of a custom so revolting, notwithstanding the plea that it is very improving to the quality of Turkey carpets. To the practice of lolling in chairs as though they were rocking-chairs, we see not so much objection, provided due skill be always exercised to keep clear of the legs of neighbouring parties.

The influence of republican institutions on the general appearance of society is observable, not only in the spirit of individual independence and energy it communicates, but also in the absence of many of the titles and gorgeous equipages which are common in Europe. Still a great number of carriages are kept, and a great number of titles are acquired by holding office. The use of *esquire* to gentlemen, *honourable* to members of congress and public officers, *excellency* to governors, causes every public meeting to be crowded with titles. Others, which are despised or declined in Europe, are closely adhered to in America. The shopkeeper, or mechanic, who has combined with his trade a commission in the militia, continues to be styled major or colonel, not only during its tenure, but for the rest of his life. The same is the case with the civil functions of judge and magistrate, and even with the ecclesiastical one of deacon. In regard to the titles of Mr. and Mrs. equality is maintained, not by their disuse, but by applying them equally to all, even labourers and beggars: they cease thusto form any distinction. The negroes "*Sir*" and "*Madam*" each other continually; and know no other order amongst themselves than that of "gentlemen" and "ladies."

If ready resentment, and willingness to fight, is to be taken as the most decisive mark of a man of honour and a gentleman, the Americans, notwithstanding tobacco, &c., bear the palm from the best shots in Europe; for not only are their duels more numerous, but much more indicative of perfect sincerity by their result: while, of late especially, the rencounters of Europe have been of so friendly a character as to reduce the transaction from a tragedy to a farce—giving hope that such proceedings will soon be left to children, with their sixpenny guns and broken tobacco pipes. The practice is, we believe from a very different cause—the moral force of public opinion, on the decline in the United States; and it would be well if a nation, who can justly boast of its efforts to prevent privateering, had to triumph in the abolition of the no less dishonourable practice of duelling. As to the stories of Kentucky drinking and gorging, the combined effects of knowledge and civilization have left them only to the page of history, from which the hand of charity will willingly blot them out.

It remains for us to notice some sectional distinctions of character which may be perceived. The north-eastern states from Maine to Pennsylvania, and the north-western,—Ohio, Indiana, and Illinois, that are free from slavery, (the one-fifth of the Quarterly,) have, in consequence, a characteristic peculiar to themselves. But the subject of slavery, as well as the Indians, we propose to notice in the next chapter; and we shall here refer to the three divisions of the country into north-eastern, north-western, and southern, as it respects their general manners. The first section contains the chief seats of learning, of commerce, and of arts; and is esteemed the most money-getting and most enterprising portion of the Union, although some of the states in the others are vying with the eastern. The manners of this section are more

cold and reserved than those of the south and west. The planters of the south are represented as a liberal, almost prodigal, race of men, but as being by no means in such princely circumstances as formerly. It is one of the wise allotments of the Ruler of the world, that what is wrongfully taken from the labourer should not long remain a benefit to the oppressor; and the slave-master, be he individually ever so benevolent, stands in the *relation* of an oppressor to the slave. The splendid and princely fortunes which some of the planters possessed are reduced within much narrower limits; indications of which, Basil Hall informs us, were very manifest in the race-course at Charleston, where these noble supporters of the turf were no longer to be found. While speaking of the southern section, it is necessary to observe, that the states of Mississippi, Louisiana, and Florida, having been of French or Spanish origin, differ materially from the other states; but that distinction is being rapidly obliterated by the tide of emigration which incessantly flows into the new states. The western states, from their recent settlement, are, of course, behind the eastern in literature and the arts; but they press rapidly onward, and are daily increasing in physical, intellectual, and moral power. The abundance of provision for all animal wants encourages a degree of hospitality, and insures a security, unknown to modern Europe. Mrs. Trollope found herself in danger of giving offence by fastening her door, as it might be construed to indicate some suspicion of the honesty of her neighbours.

We shall now mention one characteristic of American society, which, to a benevolent mind, will compensate for many trivial privations—there are no beggars. What can be more appalling and depressing to the mind, than the sight of hundreds of miserable objects sweeping pathways across the streets, to afford a pretext for soliciting alms; besides hundreds of vagrants committed to prison every month to clear the streets, many of whom gladly accept the shelter of the gaol; and this in a country where, according to the Quarterly, “*happily for the poorer classes*, society is divided into ranks, of each of which the rights and privileges are distinctly known and resolutely maintained?” Noble right!—inalienable privilege—of being sent to bridewell for one month,—liberated for one day,—and then returned there for a second period! But what is this hopeless wretchedness,—this perpetual memento of the miserable condition of human beings, in comparison with the calamity of meeting hogs in the streets and vicinity of Cincinnati? Poor Mrs. Trollope! “Immense droves of them were continually arriving from the country, by the road that led to most of our favourite walks; they were often fed and lodged in the prettiest valleys, and, worse still, were slaughtered beside the prettiest streams. Another evil threatened us from the same quarter, that was yet heavier:—our cottage had an ample piazza, (a luxury almost universal in the country houses of America,) which, shaded by a group of acacias, made a delightful sitting-room. From this

favourite spot we one day perceived symptoms of building in a field close to it ; with much anxiety we hastened to the spot, and asked what building was to be erected there. 'Tis to be a slaughter-house for hogs,' was the dreadful rep.y. As there were several gentlemen's houses in the neighbourhood, I asked if such an erection might not be indicted as a nuisance. 'A what?' 'A nuisance,' I repeated, and explained what I meant. 'No, no,' was the reply ; 'that may do very well for your tyrannical country, where a rich man's nose is more thought of than a poor man's mouth ; but hogs be profitable produce here, and we be too free for such a law as that, I guess.'" How delighted would thousands of Mrs. Trollope's fellow-subjects have been, to have come in contact with such a "nuisance" as plenty of good bacon, at two-pence per pound, and plenty of labour to earn the cents to purchase it where-withal !

Before we close this chapter, we shall notice one more point in the characteristics of American society, because it will confute, we believe, one of the grossest and most calumnious falsehoods that even the Quarterly, with the "long-wished-to-see" help of Mrs. Trollope, could possibly concoct. In connexion with the awful calamity of the hogs, Mrs. T. remarks :—"The well-disposed, those who own the feeling of justice would prevent their annoying others, will never complain of the restraints of the law. *All the freedom enjoyed in America, beyond what is enjoyed in England, is enjoyed solely by the disorderly at the expense of the orderly.*" "We have taken the liberty," says the writer in the Quarterly, "of putting the concluding remark of the above paragraph in italics, for we desire greatly to call the attention of our readers to a truth which has not before been so distinctly pointed out, but which every page of these interesting volumes, and, indeed, of every other book which we have read respecting America, tends to confirm. We conceive that the inevitable consequence of extending the democratical principle beyond what *used* to be considered its due limits, must be to degrade the cause of genuine freedom, and even essentially to diminish the amount of personal liberty in any country. In America there is ample licence, with all sorts of liberty of action and speech—but only for one class of society—the democrats ; scarcely a particle, it would seem, for any of the rest. It is true, the democrats form the majority, and a very large majority indeed, not only counted numerically, but reckoned by the scale of influence and intelligence, wealth, talents, or any other element of recognized power elsewhere. Then why find fault with it? we may be asked ; why, if the system is such as the great body of the people, including the richest, wisest, and best, choose to prefer, why should we quarrel with them for persevering in what they approve of? To this we reply, that we have no quarrel with them about it at all. We are in no way disposed to begrudge them their universal suffrage—their general dram-drinking—their occasional camp-meetings—their republican institutions—their eternal

electioneering, or anything else which may to them seem fit and proper. But we must take the liberty to point out to our countrymen, that, although this may be all very well for the Americans, (since they like it,) nothing can be more utterly repugnant to the feelings and habits of Englishmen, or more completely unsuited to the geographical, statistical, and moral situation in which this country is placed." A very grand superstructure, truly, to be raised on the foundation of Mrs. Trollope's reflections on a slaughter-house for hogs!—when, in fact, it so happens, that the civic order of American cities, so far as the permission of the disorderly to enjoy themselves at the expense of the orderly is concerned, is as far superior to that of English towns as are the means of existence of the bulk of their population. If the editor of the *Quarterly* doubts this in sober seriousness, let him send a few of his titled "Tom and Jerry" friends, and see whether they will be allowed to ring at the doors of the "orderly," knock down the charleys, and play up their pranks as they do in this land, where, "happily," all classes so well know and so resolutely maintain their rights. How, with the recently disordered state of the lower classes of the principal towns of Great Britain, and the notoriously orderly state of the American cities, any person capable of writing at all could be hired to write such falsehoods, would be beyond comprehension, if it were not evident that the dangerous "absurdity of comparing the two countries together,"¹ rendered at the present moment a bold game necessary, even at the risk of being inextricably placed in the condition of propounding a notorious and barefaced calumny.

¹ See *Quarterly Review*, vol. xlvii. p. 41.

CHAPTER IV.

INDIANS — NEGROES.

THERE are two very important circumstances connected with, and bearing forcibly on, the state of society in the United States—the practical effect of which it is by no means easy for a European correctly to appreciate. We refer to the presence, in most of the States, of some remains of the aboriginal race—the Indians; and in others, to the existence of, perhaps, a still more unfortunate race—the African negro, whether in a state of freedom, or of slavery. To a brief account of these two branches of the human family, as existing in the United States, and their influence in American society, political and civil, we propose to devote the present chapter.

The fact of the aboriginal Indians still retaining possession of large portions of the soil in some of the states, in circumstances the most peculiar perhaps that ever occurred to any portion of the human race, has recently given rise to some of the most interesting discoveries which can possibly be presented to the view of the philosopher, the philanthropist, the civilian, or the statesman. In order that the subject may be adequately appreciated, it will be desirable to present a very brief outline of the physical, mental, and moral characteristics of the race; in doing which, we avail ourselves of what ought to be, and we believe is justly considered, standard authority on this and similar subjects,—the *Encyclopædia Americana*. With the exception, perhaps, of the Esquimaux, all the Indians have the same physical characteristics. The bronze or copper colour, the straight, coarse, black hair, the hazel eyes, the high cheek-bones and erect form, are common to them all. There is, indeed, some difference in the stature of different tribes. The Osages are very tall, and the Shoshonees are below the middle stature. Each race, and, indeed, each tribe, has its peculiar physiognomy. To a European or Anglo-American, all Indians look alike; but one accustomed to them can distinguish the tribes with almost unerring certainty. Thus a Dahcotah is as readily distinguished from a Chippeway or a Winnebago by his features, as his dress. Yet the difference is not so great as to induce a belief that all the tribes are not descended from the same stock. The Esquimaux of Greenland and the eastern part of the continent differ from the red Indians in complexion, stature, and in the position of the eyes, which are set obliquely in their orbits. The Indians in the northern part of

North America are divided into several great families. The Algonquin or Chippeway race is one of the two most numerous now in existence. All the tribes of New England were Algonquins, if we may take identity of language, manners, and customs, as a proof of the fact. The vocabulary of the Narraganset tongue, recorded by Roger Williams, proves them to have been a branch of the Algonquin stock. The Mohegans, considered the progenitors of the other tribes in New England, spoke the same tongue. The tribes in Maine claimed the same origin. The Delaware, or Lenni Lenape, were of the same family, and their language has been pronounced, by competent judges, the most perfect existing. The Iroquois, or Six Nations, once dreaded from the Atlantic to the Mississippi, are Algonquins. This tribe did and still does extend from the mouth of the St. Lawrence to the Mississippi, and thence northward to Great Slave Lake; for so far do the Nayheewawk or Knisteneaux extend their rambles. On the western side of the Mississippi is another great Indian family, viz. the Sioux or Dahcotah. The Dahcotah proper inhabit the country on the west side of the Mississippi, north of the Wisconsin, to the sources of the Mississippi. Their territory extends westward to the Missouri. This tribe speak a language radically distinct from that of the Algonquin race. Their origin is unknown, and their own traditions are at variance on this point one with another. One account, and the most probable, represents them as having been driven from the confines of Mexico by the Spaniards. The branches of this tribe are the Winnebagoes, the Otoes, the Ioways, the Missouries, the Assinniboins, the Omahaws, the Kansas, and the Osages. All these tribes speak dialects of the Dahcotah tongue. The Assinniboins are known also by the names of Ossinneboins, Ossinnepoilles, Stone Indians, and Hohays. This last is the name they give themselves. The Otoes and Missouries, now united, are renowned among the tribes of the Missouries for their bravery. They can muster about 300 men. The Ioways still dwell on the Mississippi. They have from 100 to 200 men. The Osages are divided into three tribes, and can boast more than 1,000 warriors. The Kansas inhabit the plains about the heads of the Arkansas and Red rivers. Their number is unknown. The Omahaws live high up the Missouri. Besides these tribes, there dwell on the Mississippi, between the river Des Moines, the Wisconsin and the Missouri, the Sacs and Foxes, a branch of the Chippeway tribe. They speak the Chippeway tongue, and number above 1,000 men. On the Missouri are the Pawnees, divided into three tribes, of which the Arikarees are a branch. They live by hunting the buffalo, and are said to have a language of their own. The Mintarees or Bigbellies, the Mandans, the Crows and the Blackfeet, also live on the Missouri, and each is said to have a language of its own. Their numbers are unknown. The Shoshonees live between the head waters of the Missouri and Columbia rivers. They are almost constantly on horseback, and are at war with the lower tribes of the Missouri. On the Colombia river are the Chohunnish, the Skilloots,

Echeloots, Multnomahs, Clatrops, and other tribes. Their haunts and numbers are unknown. They live by fishing as well as hunting, and differ in manners and customs from the tribes east of the Rocky Mountains. They are neither so well fed nor clad. Most of these tribes have the practice of flattening the heads of infants between boards, whence the general name of Flat-heads. They have some commerce with ships on the north-west coast. Nothing is known of the languages of any of these people. In the south of the United States, there are four tribes, viz. the Chickasaws, Choctaws, Cherokees, and Creeks. All these have made some progress in civilization. The Cherokees have a written and printed language, said to be radically different from all others. They number about 15,000 souls. The Choctaws and Chickasaws are each more numerous.

The Indians have hitherto uniformly resisted all attempts to civilize them, where they could support themselves by the chase. Some few tribes, such as the Southern Indians, and the remnants of the Six Nations, having been hemmed in by the whites, and circumscribed in their limits so as to be unable to live by hunting, have turned to agriculture for subsistence; but such a departure from the habits of savage life is not to be found where there has been a possibility of supporting life by other means. The hospitality of Indians is among their most striking qualities. In any of the tribes, a stranger is received with the utmost respect and attention. On his arrival he is served with the best in the wigwam, seated on the best seat, and treated with the utmost respect and attention. His person and property are considered sacred. He may remain as long as he pleases in a wigwam without any questions being asked, and retire unopposed. Feasts are made for him, and, though his appetite may be satisfied, to refuse any thing set before him gives great offence. With all, or almost all, the Indian tribes, the sole care of the men is to provide food; the labour is the exclusive lot of the women. The use of the axe or hoe is considered beneath the dignity of the male sex. It belongs to the females to plant corn, to make and mend garments and moccasins, to build, to pitch tents, to cut wood, to bring water, to tend horses and dogs, and, on a march, to carry the baggage. The women do not murmur at this, but consider it a natural and equitable distribution of family cares. But they are regarded as an inferior race, and often transferred as property. Polygamy is general. Every man has as many wives as he can support, and, in marriages, the will of the bride is seldom or never consulted; a man addresses himself directly to the parents of his intended wife, and her fate depends on their will. The custom of dowry is reversed among Indians; the man makes certain presents to the parents of his wife, instead of receiving a portion with her. The marriage ceremony is always very simple, and, in most tribes, there is none at all. Adultery is punished by cutting off the nose, or otherwise mutilating the offending female; sometimes, though rarely, with death: in some tribes, this crime is regarded as a venial fault,

and in many the husband lends his wife to a friend without opposition on her part. Divorces are frequent, and at the pleasure of the contracting parties: in such cases, the wife is usually left to provide for the children as she may. It is no uncommon thing to see an Indian woman who has been five or six times repudiated before she finally settles in life. In some tribes, especially those of Dahcotah, origin, it is held the duty of each man to marry all the sisters of a family, and to have as many wives as he can support. In most tribes, and we believe in all, incest is held in abhorrence; and instances of devoted attachment are not uncommon.—Every Indian submits in youth to a process of severe mental and corporeal discipline; during the course of which, frequent intervals of long and rigid abstinence are enjoined, by which the system is reduced, and the imagination rendered more susceptible. Dreams are then encouraged: by these the novice is taught both his duty and his destiny; and in them his guardian *manitou*, who is to protect him in life and attend him in death, appears in the shape of some familiar animal, thenceforth to be the object of his adoration. He is taught to despise death, and during his whole life he regards it with indifference. An Indian seldom commits suicide; not because the grave does not offer him a refuge, but because patience and fortitude are the first duties of a warrior, and none but a coward can yield to pain or misfortune. This sternness of purpose is another lesson early taught. He learns also to despise labour, to become a warrior and a hunter, to associate the idea of disgrace with any other employment, and to leave to the women all the ordinary duties of life. He is a stern and unbending fatalist: whatever of good or of evil may happen, he receives it with imperturbable calmness. If misfortunes press upon him which he cannot resist, he can die; and he dies without a murmur. The opinions, traditions, and institutions of his own tribe, are endeared to him by habit, feeling, and authority; and from early infancy he is taught that the Great Spirit will be offended by any change in the customs of his red children, which have all been established by him. Reckless of consequences, he is the child of impulse; unrestrained by moral considerations, whatever his passions prompt he does. Believing all the wild and debasing superstitions which have come down to him, he has no practical views of a moral superintendence, to protect or to punish him. Government is unknown among them; certainly, that government which prescribes general rules, and enforces or vindicates them. The utter nakedness of their society can be known only by personal observation. The tribes seem to be held together by a kind of family ligament; by the ties of blood, which, in the infancy of society, are stronger, as other associations are weaker. They have no criminal code, no courts, no officers, no punishments. They have no relative duties to enforce, no debts to collect, no property to restore. They are in a state of nature, as much as it is possible for any people to be. Injuries are redressed by revenge, and strength is the security for right.

All Indians of whom we have any knowledge, believe in one Supreme God and the immortality of the soul. They attribute all good and all power to the Supreme Being. Many tribes also believe in the existence of an intelligent evil principle, whose ill offices they endeavour to avert by prayer and sacrifice. They never ask the Supreme for any thing, but merely return thanks for benefits received, saying, that he is the best judge of what is for their advantage. They believe in many subordinate deities, two of whom reside in the sun and moon. They attribute supernatural powers to all serpents, especially rattle-snakes, and will kill no animal of the genus. Even the eel escapes on account of his resemblance. They pay religious honours to rocks and venerable objects. They believe that brutes have immortal souls as well as men, and, in short, that all animated nature teems with spirits. In their belief sorcery is blended with the healing art, and their priests are also physicians and jugglers. These priests practise feats of sleight of hand with all their religious ceremonies; but, with a few exceptions, they have no power or influence over the multitude. The future state of the Indians is a material paradise, where they will follow the same occupations, and enjoy the same delights, they have experienced in this world. They have also a vague idea of future punishment for sins committed in the body. Among the superstitions of the Algonquin and Dahcotah tribes, is a very singular one: a man is sometimes devoted, by his parents or himself, to a life of ignominy. In this case, he dresses like a woman, and performs all female avocations; he associates with women only, and sometimes takes a husband; and he is held in utter contempt by all, though his condition be not of his own choice. This condition is frequently owing to a dream of his parents while he is yet unborn. In many tribes men have what they call their *medicine-bags*, which are filled with bones, feathers, and other rubbish; and to the preservation of their medicine-bags they attach much importance. Besides this, each holds some particular animal in reverence, which he calls his *medicine*, and can by no means be induced to kill, or eat it when killed, for fear of some terrible misfortune. Moreover, the Indians leave tobacco, worn-out clothing, and other articles, on rocks, as sacrifices to invisible spirits.

We believe it is impossible to estimate the number of the North American Indians with any degree of accuracy. It is, however, very small throughout, in proportion to the extent of their territory; for a hunting people cannot be very numerous. Their wars, of which we have heard so much, do not materially affect them. They are carried on in detail by small parties, and, consequently, are not very destructive. They very seldom give quarter; but when a prisoner is spared, he is sure of being adopted by the conquering tribe. The tribes who inhabit the prairies go to war on horseback, and their weapons are spears and bows and arrows. Those who inhabit the forests are generally armed with guns. Their courage is moral and passive, rather than active. They think it cowardice to be affected by calamity, or to give way to passion

or emotion. Though they have no laws, there are customs, which every individual scrupulously observes. In cases of murder, for instance, the rule is blood for blood, and the homicide rarely shuns the penalty of his deed. They have chiefs, but the power of these is limited to persuasion, and they can command no one. Sometimes a chief becomes such in virtue of his achievements in war, or his wisdom; in some tribes, there is something like hereditary rank; but even this authority does not descend in a direct line, the son of a chief being often set aside to make room for one more worthy. But in war, implicit obedience is given to the commands of a leader. The tribes that inhabit the prairies all live by hunting the buffalo, mostly on horseback; those who dwell in wooded countries hunt deer and smaller animals. The more primitive savages are the poorest, but at the same time the least dependent, for they have few wants, and can supply those few without assistance. Those who live nearer the whites have more of the comforts of life, but are no whit more civilized or more happy. We may say, that if the Indian trade of the Mississippi were interrupted for five years, all the aborigines of that quarter would be in danger of perishing, as they depend on the whites for clothing and weapons. The Indians can never be dangerous, as there is no union among them. On the whole, we may speak of them as a brave, reckless, generous, and unfortunate people.

Such is the race of human beings, who, from a remote period, occupied — we were going to say, but the term is inapplicable, and has occasioned serious misunderstandings on the subject, — ranged over the northern portion of this vast continent undisturbed, till mercantile adventure, or religious persecution, brought to their shores the civilized inhabitants of Europe. The right of Europeans to take possession of the soil which formed the vast hunting province of these tribes, has given rise to much discussion. Had they, in any sense, fulfilled the purpose for which the earth was given to the children of men, it would have been difficult to establish a title to any kind of possession contrary to their consent. But to maintain that the fact of a tribe of 1,000 men passing and repassing through as many square miles of country, and destroying as many of its irrational occupants as might be deemed needful for their support, could give them just claim to have such territory considered exclusively their own, is more than we think the most zealous philanthropist will be willing deliberately to contend for. At the utmost, the only right they could have was to have a sufficiency of land to support them in their own way; and even this, perhaps, could scarcely be maintained in its fullest extent. Nearly this view of the subject, however, was taken by the English colonists; and consequently, with very few exceptions, full compensation to the Indians for their foregoing the right of scouring the country when they thought fit, was made upon terms settled with them as parties to a voluntary treaty. We do not intend to maintain that, in some instances, the aborigines were not unjustly or cruelly treated, but that the

principle generally acted on was not unsound. The testimony of Vattel is,—“We cannot help praising the moderation of the English puritans, who first settled in New England,” (and he might have added, the first settlers of the other colonies,) “who, notwithstanding their being furnished with a charter from their sovereign, purchased of the Indians the lands they resolved to cultivate.”^a

Whether, however, the space which the Indians had been accustomed to roam over in search of food was diminished by feud, fraud, or equitable agreement, the result to the native tribes was ultimately the same: it tended to limit the only means of subsistence of which they chose to avail themselves, and, consequently, to add to the wretchedness of their condition, and to diminish their numbers. “It is obvious,” says the writer of a long and able article on this subject in the *North American Review*, to which we shall have occasion to make frequent reference, “that the reduction or disappearance of the game, consequent upon the conversion of forests into fields, and the gradual advance of a civilized people, must have soon begun to press upon the means of subsistence on which the Indians mainly depended. Other circumstances cooperated in the work of destruction. Fire-arms were introduced, and greatly facilitated the operations of the hunter. Articles of European merchandise were offered to the Indians, and they were taught the value of their furs, and encouraged to procure them. New wants arose among them: the rifle was found a more efficient instrument than the bow and arrow; blankets were more comfortable than buffalo robes; and cloth, than dressed skins. The exchange was altogether unfavourable to them: the goods they received were dear, and the peltry they furnished was cheap; a greater number of animals was necessary for the support of each family, and increased exertion was required to procure them. We need not pursue this subject further. It is easy to see the consequences, both to the Indians and their game. Herds of buffaloes were once found upon the shore of Lake Erie, and at the base of the Allegany mountains; they have now receded to the plains beyond the Mississippi, and are every year migrating still further west. A few years since, they were unknown in the Rocky Mountains; they have now passed that barrier, and will ere long reach the Pacific. The beaver has nearly disappeared upon all our borders, and hunters and trappers have followed them to the waters of the Columbia. Even the common red deer, once so abundant, is rarely found east of the Allegany, and is becoming scarce in the western regions. But a still more powerful cause has operated to produce this diminution in the number of the Indians:—ardent spirits have been the bane of their improvement, and one of the principal agents in their declension and degradation. In this proposition we include only those tribes in immediate contact with our frontier settlements, or who have remained upon

^a Vattel, book 1, chap. xviii.

reservations guaranteed to them. It has been found impracticable to prevent the sale of spirituous liquors to those who are thus situated: the most judicious laws are eluded or openly violated. The love of spirits and the love of gain conspire to bring together the buyer and the seller. As the penalties become heavier, and the probability of detection and punishment stronger, the prohibited article becomes dearer, and the sacrifice to obtain it greater. We shall not attempt to investigate the cause of the inordinate attachment displayed by the Indians to ardent spirits; it is probably without a parallel in all the history of man, and is certainly so, with very few exceptions, in the whole range of their own society. This predisposition was the subject of observation and regret two centuries ago; and the earlier historians and travellers, while they furnish the record of its existence, furnish also the evidence of its overpowering influence and destructive consequences. To the operation of the physical causes which we have described, must be added the moral causes connected with their mode of life and their peculiar opinions. Distress could not teach them providence, nor want industry. As animal food decreased, their vegetable productions were not increased. Their habits were stationary and unbending, never changing with the change of circumstances. There is a principle of repulsion in ceaseless activity, operating through all their institutions, which prevents them from appreciating or adopting any other modes of life, or any other habits of thought or action, but those which have descended to them from their ancestors." ^b

That the aboriginal population should decrease under the operation of these causes, can excite no surprise. Whether the tribes upon this continent had attained the maximum of their population before its discovery by Europeans, we have not now the means of ascertaining; it is certain, however, as well from a consideration of their mode of life by Europeans, as from a careful examination of the earlier narratives, that, greatly as they exceeded their present numbers, they were yet thinly scattered over the country. The ratio of diminution may have been greater or less; but there is no just reason to believe, that any of the tribes has been increasing in numbers at any period since they became known to Europeans. This opinion is expressed by the superintendents of Indian affairs, in the report submitted to Congress, at its last session, by the war department; and, from the favourable opportunities possessed by those officers of acquiring correct information upon this subject, their opinion must carry with it considerable authority. The whole amount of Indian population within the United States, east of the Mississippi, is estimated in this report at 105,060, and is divided as follows:—

Within the states of Maine, Massachusetts, Rhode Island, }	
Connecticut, and Virginia, }	2,573
The state of New York	4,820
Carry over	7,393

^b North American Review, vol. xxx. pp. 65—67.

TOPOGRAPHY OF

Brought over.	7,393
Pennsylvania	300
North Carolina	3,100
South Carolina	300
Georgia	5,000
Tennessee	1,000
Ohio	1,877
Mississippi	23,400
Alabama	19,200
Indiana	4,050
Illinois	5,900
Territory of Michigan	29,450
Florida	4,000
	<hr/>
	105,060

It will be seen that, in the original states, the primitive stock has been reduced to 16,093 individuals, and that three fourths of the number now surviving in the whole of the vast country east of the river Mississippi, are found in the states of Alabama and Mississippi, and in the territory of Michigan, where the pressure upon them is now beginning to be felt, and will bring with it the usual process of diminution. In the same report, the number of Indians west of the Mississippi is thus estimated:

Between the Mississippi and the Rocky Mountains	108,070
Within the ranges of the Rocky Mountains	20,000
West of the Rocky Mountains	80,000

Making a general aggregate of 313,130, within the United States, extending over twenty-four degrees of latitude and fifty-eight degrees of longitude. And these are the remnants of the primitive people, who, only two centuries ago, possessed this vast country, and who found in the sea, the lakes, the rivers, and the forests, means of subsistence sufficient for their wants.

From an early period, their rapid declension and ultimate extinction were foreseen and lamented, and various plans for their preservation and improvement were projected and pursued. Many of them were carefully taught at our seminaries of education, in the hope that principles of morality and habits of industry would be acquired, and that they might stimulate their countrymen by precept and example to a better course of life. Missionary stations were established among various tribes, where zealous and pious men devoted themselves, with generous ardour, to the task of instruction, as well in agriculture and the mechanical arts, as in the principles of morality and religion. The Roman Catholic church preceded the Protestant in this labour of charity; and the *Lettres Edifiantes* are monuments of her zeal and liberality. Unfortunately, they are monuments also of unsuccessful and unproductive

efforts. What tribe has been civilized by all this expenditure of treasure, and labour, and care? From the martyrdom of Le Père Brebeuf, in 1649, upon the shore of Lake Huron, to the death of the last missionary, who sacrificed himself in a cause as holy as it has proved hopeless, what permanent effect has been produced? Year after year sanguine anticipations have been formed, to be succeeded by disappointment and despondency. We are flattered with accounts of success, with explanations for the past, and hopes for the future; and this without the slightest intention to deceive. But the subject itself is calculated to excite these expectations. There are always individuals attending these establishments who give fair promise of permanent improvement and usefulness. And as these prospects are blighted, others succeed to excite the same hopes, and to end in the same disappointment. The cause of this total failure cannot be attributed to the nature of the experiment, nor to the character, qualifications, or conduct, of those who have directed it. The process and the persons have varied, as experience suggested alterations in the one, and a spirit of generous self-devotion supplied the changes in the other. But there seems to be some insurmountable obstacle in the habits or temperament of the Indians, which has heretofore prevented, and yet prevents, the success of these labours. Whatever this may be, it appears to be confined to the tribes occupying this part of the continent. In Mexico and South America, a large portion of the aboriginal race has accommodated itself to new circumstances, and forms a constituent part of the same society with their conquerors. Under the Spanish *régime* they existed as a degraded cast; but still they were sedentary, living under the protection of the laws, and providing by labour for their comfortable subsistence. In other parts of the continent, particularly in California and Paraguay, where the Spanish sway had but a nominal existence, the Jesuits succeeded in collecting the Indians into regular societies, in improving their morals and condition, and in controlling and directing their conduct. In the usual progress of conquest, where permanent possession is retained, the victors and vanquished become connected together, and if they do not form one people, they yet acknowledge obedience to the same laws, and look to them for protection. But from the St. Lawrence to the Gulf of Mexico, under the French, or British, or Spanish, or American rule, where is the tribe of Indians, who have changed their manners, who have become incorporated with their conquerors, or who have exhibited any just estimate of the improvements around them, or any wish to participate in them?

The following statement from Sherwood's *Gazeteer of Georgia*, published in 1827, gives a more favourable representation of the state of the Cherokees, than the writer in the *North American Review* will admit. "Within the last twenty years, the Cherokees have rapidly advanced towards civilization. They now live in comfortable houses, chiefly in villages, and cultivate large farms. They raise large herds of cattle, which they sell for beef to the inhabitants of neighbouring states. Many

mechanical arts have been introduced among them. They have carpenters and blacksmiths, and many of the women spin and weave, and make butter and cheese. The population, instead of decreasing, as is the case generally with the tribes surrounded by the whites, increases very rapidly. There are now 13,563 natives in the nation; 147 white men and seventy-three white women have intermarried with them. They own 1277 slaves. Total, 15,060 souls. Increase in the last six years, 3563. Their government is republican, and power is vested in a committee and council, answering to our senate and house of representatives. The members are elected once in two years. Newtown is the seat of government. Their judges act with authority, and prevent entirely the use of ardent spirits during the sessions of their courts. The mission at Spring Place was established in 1801. Since that time, nearly a dozen have been brought into operation in various parts of the nation. The number of children in the several missionary schools is nearly 500, all learning the English language."

In reference to this and similar statements, the Reviewer observes, "We are as unwilling to underrate, as we should be to overrate, the progress made by these Indians in civilization and improvement. We are well aware, that the constitution of the Cherokees, their press, and newspaper, and alphabet, their schools and police, have sent through all our borders the glad tidings, that the long night of aboriginal ignorance was ended, and that the day of knowledge had dawned. Would that it were so. None would rejoice more sincerely than we should. But this great cause can derive no aid from exaggerated representations; from promises never to be kept, and from expectations never to be realized. The truth must finally come, and it will come with a powerful reaction. We hope that our opinion upon this subject may be erroneous. But we have melancholy forebodings. That a few principal men, who can secure favourable cotton lands, and cultivate them with slaves, will be comfortable and satisfied, we may well believe. And so long as the large annuities received from the United States are applied to the support of a newspaper and to other objects, more important to the rich than the poor, erroneous impressions upon these subjects may prevail. But to form just conceptions of the spirit and objects of these efforts, we must look at their practical operation upon the community. It is here, if the facts which have been stated to us are correct, and of which we have no doubt, that they will be found wanting.

"The relative condition of the two races of men, who yet divide this portion of the continent between them, is a moral problem involved in much obscurity. The physical causes we have described, exasperated by the moral evils introduced by them, are sufficient to account for the diminution and deterioration of the Indians. But why were not these causes counteracted by the operation of other circumstances? As civilization shed her light upon them, why were they blind to its beams? Hungry

or naked, why did they disregard, or regarding, why did they neglect, those arts by which food and clothing could be procured? Existing for two centuries in contact with a civilized people, they have resisted, and successfully too, every effort to meliorate their situation, or to introduce among them the most common arts of life. Their moral and their intellectual condition have been equally stationary. And in the whole circle of their existence, it would be difficult to point to a single advantage which they have derived from their acquaintance with the Europeans. All this is without a parallel in the history of the world. That it is not to be attributed to the indifference or neglect of the whites, we have already shown. There must then be an inherent difficulty, arising from the institutions, character, and condition of the Indians themselves. It is easy, in contemplating the situation of such a people, to perceive the difficulties to be encountered in any effort to produce a radical change in their condition. The *fulcrum* is wanting upon which the lever must be placed. They are contented as they are; not contented merely, but clinging with a death-grasp to their own institutions. This feeling, inculcated in youth, strengthened in manhood, and nourished in age, renders them inaccessible to argument or remonstrance. To roam the forests at will, to pursue their game, to attack their enemies, to spend the rest of their lives in listless indolence, to eat inordinately when they have food, to suffer patiently when they have none, and to be ready at all times to die,—these are the principal occupations of an Indian. But little knowledge of human nature is necessary, to be sensible how unwilling a savage would be to exchange such a life for the stationary and laborious duties of civilized society. Experience has shown, that the Indians are steadily and rapidly diminishing. And the causes of this diminution are yet in constant and active operation. It has also been shown, that our efforts to stand between the living and the dead," continues the writer before mentioned, "to stay this tide which is spreading around them and over them, have long been fruitless, and are now hopeless. And equally fruitless and hopeless are the attempts to impart to them, in their present situations, the blessings of religion, the benefits of science and the arts, and the advantages of an efficient and stable government. The time seems to have arrived, when a change in our principles and practice is necessary; when some new effort must be made to meliorate the condition of the Indians, if we would not be left without a living monument of their misfortunes, or a living evidence of our desire to repair them."

We hope, we may say we believe, from all we have read on both sides of this controversy, that the North American Review does, in fact, take too unfavourable a view of the improvement which has taken place among the Cherokees; and that christianity and civilization have produced extensively-beneficial results, though, probably, not equal to the sincere but sanguine representations of some of the advocates of the Cherokee character.

The attention of the people of the United States, and, in some measure, of Europe, has been attracted to this interesting subject with peculiar force at the present time, in consequence of the controversy carried on between the state of Georgia and the Cherokee nation residing within its limits. We have already observed, that the civil and political relations existing between the aborigines and the white inhabitants, are such as the world affords no example of. In other cases, the less civilized inhabitants have either become the subjects of their conquerors, or have been amalgamated with them; but the North American Indians have never intermingled with the whites, and have been permitted by them to exist in a state of almost independence, in the very heart of some of their states. The Cherokees have retained possession of the north-western portion of the state of Georgia, and not only decline to relinquish their title to it, but have formed a constitutional government, as already stated, among themselves, and claiming an entire exemption from the control of the laws and government of the state, have assumed all the essential attributes of sovereignty, and appealed to the general government to support them in that claim. The establishment of this government, thus claiming to be independent, and the probability that a similar policy will be adopted by the other southern tribes, by which means they may become permanently established in their present possessions, necessarily presents to the states within whose limits they reside a serious question for consideration. It is evident that if this pretension be not resisted now, resistance hereafter will be vain. It is one of those questions, eminently practical, which a few years' acquiescence would settle. What might now be the assertion of a just and proper jurisdiction by the civilized communities, might then be an unjust claim, to be enforced only by war and conquest. The following is the argument of the writers already referred to on this point. "This demand is now made for the first time, since the discovery of the continent. Writers upon natural law, courts of high character and jurisdiction, the practice of other nations, are all adverse to it. We can discern no advantages which either party can reasonably anticipate from such a measure. There can be none to the Indians; for if they are anxious and prepared for a stable government, which shall protect and encourage all, such governments they will find in the states where they reside. What has a Cherokee to fear from the operation of the laws of Georgia? If he has advanced in knowledge and improvement, as many sanguine persons believe and represent, he will find these laws more just, better administered, and far more equal in their operation, than the *regulations* which the chiefs have established and are enforcing. What Indian has ever been injured by the laws of any state? We ask the question without any fear of the answer. If these Indians are too ignorant and barbarous to submit to the state laws, or duly to estimate their value, they are too ignorant and barbarous to establish and maintain a government which shall protect its own citizens, and preserve the necessary relations

and intercourse with its neighbours. And if there are any serious practical objections to the operation of these laws, growing out of the state of society among the Indians, it would be easy for the state authorities to make such changes and interpose such securities as would protect them now, and lead them hereafter, if any thing can lead them, to a full participation in political rights. New York has acted upon this principle, in authorizing the Brothertown Indians to hold town meetings and elect town officers. No doubt can exist of the disposition of the state legislatures thus to accommodate their laws to the actual condition of the Indians. And in fact it is the criminal and not the civil code, from which they have any thing to fear. The former extends to them all, and at all times, and in its process, its prohibitions, and its punishments, introduces regulations utterly at variance with all they have seen, or heard, or believed. The rights and remedies secured and provided by the civil code would affect them less, as they have little for them to operate upon, and the obligation of a promise is not wholly unknown to them. But the experiment has already been made, in many of the states, of extending over them the action of the criminal laws; and, as we have seen, the general government has done the same, through the whole vast extent of the Indian country, however rude or barbarous may be the tribes inhabiting it, in all cases where an injury has been committed against a white man. We have yet to learn, that any injustice has resulted from this legislation. But, if it is difficult to perceive the advantages which the Indian tribes would derive from these independent governments, it is not difficult to foresee the mischiefs they would produce to the states and people within whose limits they might be formed. The progress of improvement would be checked. Extensive tracts of land would be held by the Indians in a state of nature. The continuity of settlements, and the communication between them, would be interrupted. Fugitives from labour and justice would seek shelter, and sometimes find it, in these little sovereignties. Questions of conflicting jurisdiction would frequently occur, not easy to be determined; for in vain might we search for principle, analogy, or precedent, by which to adjust them. There is already enough of the *imperium in imperio* in our government. Another wheel is not wanted to render the machinery still more complicated. In the whole extent of christendom can a single instance be produced, where a state has voluntarily permitted, within its acknowledged boundaries, the establishment of a government independent of, and unconnected with its own?"

While the Cherokees are endeavouring to carry their point with a high hand, making it *death* for any individual, or number of individuals, to agree to sell or exchange any portion of their land without consent of their new government, the legislature of Georgia has intimated its intention not only to extend its laws^c over the

* In January, 1828, proceedings were had by the legislature with regard to the course pursued by the United States, on the Indian question, and a report on the subject of the Cherokee lands, was

Indian tribes, but ultimately to compel their removal by force. The president of the United States, however, assures them, that this will not be permitted; while he informs them also, that, if they remain in the State of Georgia, they must submit to its laws. "This is the course," says the North American Review, "we had a right to expect, and to which there can be no just objection. Let the whole subject be fully explained to the Indians. Let them know that the establishment of an independent government is a hopeless project, which cannot be permitted, and which, if it could be permitted, would lead to their inevitable ruin. Let the offer of a new country be made to them, with ample means to reach it and to subsist in it, with ample security for its peaceful and perpetual possession, and with a pledge, in the words of the Secretary at War, 'that the most enlarged and generous efforts, by the government, will be made to improve their minds, better their condition, and aid them in their efforts of self-government.' Let them distinctly understand, that those who are not disposed to remove, but wish to remain and submit to our laws, will, as the President has told the Creeks, 'have land laid off for them and their families, in fee.' When all this is done, no consequences can affect the character of the government, or occasion regret to the nation. The Indians would go, and go speedily, and with satisfaction. A few perhaps might linger around the site of their council-fires; but almost as soon as the patents could be issued to redeem the pledge made to them, they would dispose of their possessions and rejoin their countrymen. And even should these prefer ancient associations to future prospects, and finally melt away before our people and institutions, the result must be attributed to causes which we can neither stay nor control. If a paternal authority is exercised over the aboriginal colonies, and just principles of communication with them, and of intercommunication among them, are established and enforced, we may hope to see that improvement in their condition, for which we have so long and so vainly looked.

made to the legislature, and the committee recommended the adoption of the following resolutions among others:—

"Resolved, That the United States, in failing to procure the lands in controversy, as 'early' as the same could be done upon 'peaceable' and 'reasonable terms,' have palpably violated their contract with Georgia, and are now bound, at all hazards, and without regard to terms, to procure the said lands for the use of Georgia.

"Resolved, That the policy which has been pursued by the United States towards the Cherokee Indians, has not been in good faith towards Georgia; and that as all the difficulties which now exist to an extinguishment of the Indian title, have resulted alone from the acts and policy of the United States, it would be unjust and dishonourable in them to take shelter behind those difficulties.

"Resolved, That all the lands appropriated and unappropriated, which lie within the conventional limits of Georgia, belong to her absolutely; that the title is in her; that the Indians are tenants at her will, and that she may, at any time she pleases, determine that tenancy by taking possession of the premises; and that Georgia has the right to extend her authority, and to coerce obedience to them, from all descriptions of people, be they white, red, or black, who may reside within her limits.

"Resolved, That Georgia entertains for the general government so high a regard, and is so solicitous to do no act that can disturb the public tranquillity, that she will not attempt to enforce her rights by violence, until all other means of redress fail."

“ Impressed with the conviction, that a removal from their present position, and from the vicinity of the settlements to the regions beyond the Mississippi, can alone preserve from final extinction the remnant of the aboriginal population, a number of benevolent men have associated themselves, and established a society, under the appellation of ‘ The Indian Board, for the Emigration, Preservation, and Improvement of the Aborigines of America,’ the objects of which are distinctly indicated by this title. The society avows its intention to ‘ afford to the emigrant Indians all the necessary instruction in the arts of life and the duties of religion,’ and pledges itself to ‘ cooperate with the federal government of the United States in its operations on Indian affairs, and at no time to contravene its laws.’ The plan for their removal, establishment, and gradual improvement, sketched by Colonel M’Kenney, is just to ourselves, and liberal to them ; offering a fair exchange of property, insuring present subsistence and future support, and holding out rational prospects of melioration in their external circumstances and their moral relations. ‘ It is proposed in the first place to give them a country, and to secure it to them by the most ample and solemn sanctions, suitable in all respects, in exchange for theirs ; to pay them for all their improvements, and see them, free of cost, to their new homes ; to aid them after their arrival, and protect them ; to put over them at once the framework of a government, and to fill this up, as their advancement in civilization may require it ; to establish schools over their country for the enlightening of the rising generation, and to give them the gospel. In fine, it is proposed to place them in a territorial relation to us in all respects, and in the enjoyment of all the privileges consequent upon such a relation, civil, political, and religious. Thus will they attain an elevation to which, in their present relations, they can never aspire. And then would new influences be created, ennobling in their tendencies, and animating in their effects. Under these the Indian would rise to the distinction to which he has always been a stranger, and live and act with reference to the corresponding honours and benefits of such a state.”

It appears that there is still an extensive and decided difference of opinion on this subject amongst the patriotic and benevolent in the United States. On this point, Colonel M’Kenney very candidly observes, “ That men, and good men, should differ in their views of what ought to be done for the preservation and improvement of our Indians, is natural. We know there are men, and good men, who are opposed to the emigration of the Indians. We respect them and their motives. They seek to save and civilize these people. We profess to aim at the accomplishment of the same end, and differ only as to the mode. We once entertained similar views of this question with them, and thought it practicable to preserve and elevate the character of our Indians, even in their present anomalous relations to the states, but it was ‘ distance that lent enchantment to the view.’ We have since seen for ourselves, and that which before looked like flying clouds, we found, on a nearer approach, to be

impassable mountains. We believe, if the Indians do not emigrate, and fly the causes which are fixed in themselves, and which have proved so destructive in the past, *they must perish*. We might distrust our conclusions, though derived from personal investigation, did not experience confirm them. But, alas! it is the admonition of experience, more than anything else, that claims and urges us to employ all honourable means to persuade these hapless people to acquiesce in the policy which is proposed to them."

"We cannot enter," says the reviewer, "into a full examination of the effect of planting colonies of Indians in the western regions. From the retrospective view furnished by their history, it is evidently the only means in our power, or in theirs, which offers any probability of preserving them from utter extinction. As a *dernier resort* therefore, apart from the intrinsic merits of the scheme itself, it has every claim to a fair experiment. But when viewed in connexion with the peculiar notions and mode of life of the Indians, the prospect it offers is consolatory to every reflecting person. Upon this subject we shall adduce the opinion of an able and dispassionate labourer in the great field of aboriginal improvement. The Rev. Mr. M'Coy has for many years devoted himself, with an industry equalled only by his zeal and disinterestedness, to the life and labour of a missionary. Ten years since, he commenced a school for the instruction of youth, at Fort Wayne, in Indiana, but the progress of the settlements soon compelled him to retire, and he removed his establishment to the St. Joseph of Lake Michigan. He here founded an institution for the benefit of the Indians, and adopted a course of procedure well calculated to be permanently beneficial to them. The youths were taught reading, writing, and arithmetic, and also agriculture, the mechanical arts, and domestic duties. Their mental discipline, moral advancement, and progress in the business and occupations of life, went on together. The principal and his coadjutors were indefatigable in their application, and sanguine in their expectations, and for a time every thing promised success. And we ourselves, from a personal examination of the establishment, augured favourably of its permanence and usefulness. We have never seen a similar institution managed with more purity or judgment. But the novelty soon wore off, the Indians became dissatisfied, the institution has declined, and Mr. M'Coy is convinced, that nothing but removal, and speedy and entire removal, can save from utter ruin those who have been taught, or those who are untaught. During the year 1828, he repaired to the country west of the Mississippi, to examine its adaptation to the purposes of the Indians, and has returned, satisfied with the prospect it offers, and he is now directing his efforts to procure their emigration.^d Mr. M'Coy, from personal observation, describes the

^d Although the following passages from the interesting pamphlet of Mr. Onley give a very afflicting view of the present state of the Indian tribes in the United States, we apprehend them to be calculated to correct notions which have been taken up on too slight grounds, while they are of a character too descriptive to be omitted:—

country west of Missouri and Arkansas, as suitable for the colonization and permanent residence of the Indians. 'This country,' he says, 'is generally high, healthy, rich, its extent adequate to the purposes under consideration, and the climate desirable.' He approves the general plan originally submitted by Mr. Monroe and

"You have your missionaries at Gayhead, Stockbridge, Brothertown, Oneida, among the Tuscaroras, Tonnewantas, Senecas, Wyandots, Ottawas, Potawatamies, Miamies, &c.; but the most they can do in the present posture of affairs is to soften, as it were, the pillow of the dying. They have been instrumental in benefiting a few; nevertheless, in a national point of view, all these tribes, as well as others near at hand, west of Lake Michigan and West of the Mississippi river, continue to dwindle,—they are positively perishing, and perishing rapidly.

"Through the instrumentality of your missionaries, some of the natives, no doubt, have become pious, and have gone, or will go, to a better country in the heavens, where their condition will be ordered by principles very different from those which have governed the conduct of men towards them while upon earth. A few have acquired some knowledge of letters and of labour; so far, this is well. But let none imagine that these tribes, and many others, are, as tribes, improving their condition generally. I say it without fear of contradiction, that their condition is becoming more and more miserable every year. I repeat it,—*they are positively perishing.*

"It is a lamentable truth, that the evil (the use of ardent spirits) increases annually, and occasions a fearful waste of human life. As a specimen, take the following. In the fall and winter of 1825-6, in the neighbourhood of the Carey Missionary Station, near Lake Michigan, twenty-five Indians were either directly murdered by the hands of their own people, or otherwise *lost their lives by drunkenness.* I took the liberty, not long since, of suggesting that the condition of these small bands, who are on little reservations in New England, New York, and Ohio, surrounded by white population, is worse than that of those who have more latitude on our frontier. It is probable that they may be more plentifully supplied with food and raiment, but I have no hesitation in repeating that their numbers decrease faster than those of the other tribes; and that they are more debased in principle, and positively more worthless, than those with whom I am comparing them. This sentiment is the result of my own personal observation, as well as of the concurrent testimony of the most authentic information. But we say, that their depravity and sufferings have been increased by our proximity to them, and their hopes cut off by our policy. They are too deeply sunk in the mire to be able to extricate themselves. It therefore rests with us to say, whether they shall be left to perish, or whether they can be or shall be 'taken out of the horrible pit and miry clay, and set upon a rock and their goings established,'—or rather, they established in a home which they can call *their own.* But let the policy of our government, in relation to them, continue as it has been and now is, and with the exception of the Cherokees, and their immediate neighbours, I know of no tribe, nor part of a tribe, no, not one, within or near to all the frontiers of Arkansas, Missouri, Illinois, Indiana, Michigan, or Ohio, not one of those bands on small reservations in New York or New England, of whom we can indulge any better hope than that of their total extermination. Even over those whom we have excepted above, a gloomy cloud is gathering, of which we shall speak hereafter.

"I fear the public are not fully aware of this fact, especially the Christian public, who would more especially shudder at the thought, and who have been hoping for better things. I fear, too, that missionaries are sometimes afraid to tell the worst part of the story, lest the benevolent societies and individuals who patronise the missions should become discouraged, and decline the undertaking. I know that there cannot exist with them any sinister motive to such a forbearance, because their labours,—the labours of their whole lives,—are gratuitously devoted to this enterprise. But they have been eye-witnesses of Indian wickedness and sufferings. They have heard fathers begging them to have mercy on them and their offspring, and entreating them not to forsake them; they have seen the mother digging roots for her children, and have beheld the emaciated frames of those who, in winter, had lived weeks upon acorns only, or who, in summer, had fed for days upon boiled weeds alone. They have heard the cries of children suffering with hunger, and seen the frozen limb of the half-naked sufferer."

Mr. Calhoun, and recommended anew by the present executive and the secretary of war, of removing, with their own consent, the various tribes to that region, and establishing over them such a government as will protect, and restrain, and improve them. If the conviction of its importance should lead to its adoption, and to the voluntary acquiescence of the Indians, it would be easy to regulate hereafter the practical details of the subject, and to accommodate them to the progress and prospects of the migrating colonists and of the permanent settlements formed by them."

The "right of the strong over the weak" has generally been considered as only a periphrasis for the principle of tyranny; and, unhappily, the history of the world has afforded too many facts to justify such an interpretation. Yet the very attributes of strength and weakness originate a relation, to which both rights and duties are attached which do not exist among equals. We apprehend it will be admitted by most of our readers, (we wish we could say all) that it is no man's duty to do what he cannot do: thus, it is not the duty of the weak to prevent the injuries committed by the strong upon each other; but it is the duty of the strong to prevent the weak acting injuriously towards each other. On this principle we apprehend the United States, and the separate states, are justified in requiring the Indians to refrain from murdering each other; which their customs not only allow, but require. It is singular and amusing to find the same individuals who deprecate the application of this principle (we speak not now of the abuses of it) in Georgia, loudly calling on the British government to adopt it in India. What right have the government of Bengal to suppress the burning of widows, which that of Georgia has not also to prevent an Indian being murdered in cold blood, because he accidentally shot a companion while engaged in the pursuit of game? And if none, what becomes of the absolute sovereignty of the nation of Cherokees?

It is, however, far from our intention to maintain that the state-legislature of Georgia is acting in consistency with a sense of what is due to the Cherokees. What has the state effected, with ample means in its power to enlighten and instruct the Indians within its borders? It is true, the task is difficult and discouraging, but no attempt by the state has ever been made; while, on the other hand, American citizens have been permitted, in defiance of their own laws, to corrupt and demoralize the Indians, in a manner the most disgraceful to human nature and to civilized society. It would have been at least decent, that the white inhabitants of Georgia should have been compelled to obey their own laws, before the operation of those laws was extended to the red ones. It will be said, efforts were made to check the abominable evil, but in vain. Possibly so; but does then the free and enlightened sovereign state of Georgia mean to exhibit itself before the world as compelling the Indians to reverence its laws, while it cannot compel its own subjects to keep them? On this subject the

remarks of a correspondent in one of the American papers, are severer than we should venture to pen. We must leave it to his fellow countrymen to decide whether they are more severe than just.

"American citizens are so much worse than the Indians, that the latter cannot live near them. Do not facts sufficiently evince this? While the white man can go and come without fear of robbery, oppression, or murder, the poor Indian must watch night and day, to preserve even one little poney to plough his field, or one poor cow to nourish his children, or one beeve to furnish meat for his table. White women can pass and repass with safety among the Indians, yet the Indians must watch with the most anxious solicitude, or their wives and daughters will be betrayed, and worse than murdered by American citizens. They must watch also every motion of their own hearts, or they are made drunkards before they know it by American citizens, who are constantly forcing intoxicating poison into their hands. Wherever they go, which way soever they turn, they find American citizens with some dark and deep laid plan to rob them of their property, their friends, their virtue, their good name, their all. And what can they do? They cannot live with such wretches. They must go to the more virtuous Comanches of the west. They perhaps, without envy, can see them in possession of one little blanket, in which they may wrap themselves. If American citizens were not insensible to shame, they would blush at the recital of their deeds."

Whatever good qualities the inhabitants of the southern states may possess, they must be either more or less than men, if the state of society be not materially degraded by the double evil of the Indians on their borders, and slavery in their midst. To the circumstances and moral effects of the latter we shall now call the attention of our readers. It would have been gratifying if we could have entitled this section of the chapter "Slavery," instead of "Negroes;" but, unhappily, the former would have by no means expressed the extent of the subject now placed before us—the condition of the free negroes and their influence on society being, in many instances, more deplorable than that of their enslaved brethren, and presenting features of civil polity still more anomalous.

We shall first notice the condition of free persons of colour, both in the free and the slave states. It is with regret we say, that in those states where slavery has been abolished, the separating feeling between the whites and their coloured fellow-citizens is so strong, as to effectually prevent that amalgamation in society which would, strange as the assertion may seem, elevate both races. Both in public and private life the distinction is, with few exceptions, studiously kept up; and the negro is perpetually and forcibly reminded that he is held to be of an inferior race to his white fellow-citizen. This feeling is kept alive by the evil which itself, in a great

degree, it produces—the moral degradation of a very large portion of the class. In these states from one-sixth to one-third of the criminals are coloured persons, while they bear to the population a proportion of only 1-70th to 1-30th; that is to say, the proportion of coloured culprits is ten times that of the whites.* So grievous a burden has the coloured population been found in Ohio and some other states, that they have deemed themselves justified in the extraordinary measure of requiring all coloured persons to give security for their good conduct in a heavy penalty, or to quit the territory.^f It would seem that the tie of christian brotherhood itself is insufficient to overcome the association of ideas connected with the dark colour of the negroes, and that the temple of the Deity is desecrated by the palpable exhibition

* The following statement is from the First Annual Report of the Prison Discipline Society:—"The first cause existing in society, of the frequency and increase of crime, is the degraded character of the coloured population. The facts, which are gathered from the penitentiaries, to show how great a proportion of the convicts are coloured, even in those states, where the coloured population is small, show most strikingly the connexion between ignorance and vice.

"In Massachusetts, the population is 523,000. The coloured population less than 7,000; the whole number of convicts 314; the coloured convicts 50; that is, 1-74th part of the population, and nearly 1-6th part of the convicts are coloured.

"In Connecticut, the whole population is 275,000. The coloured population about 8,000; the whole number of convicts is 117; the coloured convicts 39: that is, 1-34th part of the population is coloured, and 1-3d part of the convicts.

"In Vermont, the whole coloured population is only 918 souls, from whom twenty-four have been furnished for the penitentiary.

"In New York, the whole population is 1,372,000. The coloured population 39,000; the whole number of convicts in the state prison in the city is 637; the coloured convicts 154; that is, 1-35th part of the population is coloured, and about 1-4th part of the convicts.

"In New Jersey, the whole population is 277,000; the coloured population 20,000; the whole number of convicts 74; the number of coloured convicts 24; that is, 1-13th part of the population is coloured, and 1-3d part of the convicts.

"In Pennsylvania, the whole population is 1,049,000; the coloured population 30,000; in 1816, the whole number of convicts 407; the number of coloured convicts 176; in 1819, the whole number of convicts 474; the number of coloured convicts 165; that is, 1-34th part of the population is coloured, and more than 1-3d part of the convicts.

"It is not necessary to pursue these illustrations. It is sufficiently apparent, that one great cause of the frequency and increase of crime, is neglecting to raise the character of the coloured population."—*African Repository*, vol. ii. pp. 152, 153.

^f "The vices of the free blacks do not spring from any inherent depravity in their natural constitution, but from their unfortunate situation. Social intercourse is a want which we are prompted to gratify by all the properties of our nature. And as they cannot obtain it in the better circles of society, nor always among themselves, they resort to slaves, and to the most debased and worthless of the whites. Corruption, and all the train of petty offences, are the consequences. Proprietors of slaves, in whose neighbourhood any free coloured family is situated, know how infectious and pernicious this intercourse is. And the penal records of the tribunals, especially in the large cities, bear frightful testimony to the disproportionate number of crimes committed by the free people of colour. The evil of their increase in those cities is so enormous as to call loudly for effective remedy. It has been so sensibly felt in a neighbouring city, (Cincinnati,) as to require, in the opinion of the public authorities, the enforcement of the vigorous measure of the expulsion of all who could not give guarantees of their good behaviour."—*Mr. Clay's Address to the Colonization Society of Kentucky.*

of the degrading stain, which the baptismal font has failed, in the estimation of professing christians, to wash away.

For this unhappy race a star in the east has appeared, and the dawn of a brilliant day has arisen upon them. Fourteen years ago, some benevolent individuals formed a society for establishing a colony of free negroes on the shores of Africa. Like other noble institutions, it has had difficulties to contend with which have impeded its early progress. Very much has, however, already been effected by it—much in point of the number of individuals benefited—but infinitely more in the convincing proof afforded them, that, placed in circumstances reasonably favourable, the negro is capable of forming a character which may make the pride of distinction all his own. “One of the earliest acts of the society was to despatch a competent agent to Africa, to explore its coast and the countries bordering upon it, and to select a suitable spot for the establishment of the contemplated colony. The society was eminently fortunate in the choice of its agent, as it has been generally in those whom it subsequently engaged in its service. A selection was finally made of a proper district, and a purchase of it was effected from the native authorities in December, 1822, to which additions have been made, as the growing wants of the colony, actual or anticipated, required. The country so acquired, upon terms as moderate as those on which the government of the Union extinguishes the Indian title to soil within the United States, embraces large tracts of fertile land capable of yielding all the rich and varied produce of the tropics, possesses great commercial advantages, with an extent of sea-coast of from 150 to 200 miles, and enjoys a climate, well adapted to the negro constitution, but providentially fatal to that of the whites. Within that district the society founded its colony, under the denomination of Liberia, established towns, laid off plantations for the colonists, and erected military works for their defence. Annually, and as often as the pecuniary circumstances of the society would admit, vessels from the ports of the United States have been sent to Liberia, laden with emigrants, and with utensils, provisions, and other objects for their comfort. No difficulty has been experienced in obtaining as many colonists as the means of the society were competent to transport; they have been found, indeed, altogether inadequate to accommodate all who were willing and anxious to go. The rate of expense of transportation and subsistence during the voyage, per head, was greater in earlier voyages; it was subsequently reduced to about twenty dollars, and is believed to be susceptible of considerable further reduction. The number of colonists of both sexes amounts now to upwards of 2,000.

“The colony, in the first period of its existence, had some collisions with the native tribes, which rose to such a height as to break out in open war. The war was conducted by the late gallant Mr. Ashmun, with singular good judgment and fortune, and was speedily brought to a successful close. It had the effect to impress upon the

natives a high idea of the skill, bravery, and power of the colonists; and having since become better acquainted with them, perceived the advantages of the colony, and gradually acquired a taste for its commerce and arts, no further misunderstanding with them is apprehended, and the colony is daily acquiring a salutary influence over them.

"The colony has a government adequate to the protection of the rights of persons and property, and to the preservation of order. The agent of the society combines the functions of governor, commander-in-chief, and highest judicial officer. The colonists share in the government, and elect various officers necessary to the administration. They appoint, annually, boards or committees of public works, of agriculture, and of health, which are charged with the superintendence of those important interests. It has established schools for the instruction of youth, and erected houses of public worship, in which divine service is regularly performed. And it has a public library of 1,200 volumes, and a printing-press, which issues periodically a gazette.

"The colonists follow the mechanical arts, or agriculture, or commerce, as their inclinations or attainments prompt them. The land produces rice, cassada, coffee, potatoes, and all kinds of garden vegetables; and is capable of yielding sugar-cane, indigo, and, in short, all the productions of the tropics. It is rich, easily tilled, and yields two crops of many articles in the circle of a year. They carry on an advantageous commerce with the natives by exchanges for ivory, gums, dye-stuffs, drugs, and other articles of African origin; and with the United States, which is annually increasing, and which amounted last year to 60,000 dollars, in the produce of the colony, and in objects acquired by their traffic with the natives, receiving, in return, such supplies of American and other manufactures as are best adapted to their wants." §

Partaking of that general impulse which seems to have pervaded American society both in its civil and religious aspect during the last two or three years, the Colonization Society has become increasingly efficient, although it has met with opposition from contrary points, alike from the advocates of emancipation and from the friends of "things as they are" in the Southern states; the former maintaining that the tendency of the society was to perpetuate slavery by ruining the free blacks,—the latter, that the society aimed directly at some project for promoting emancipation. The occurrences of the last year, which indicated a considerable tendency to insurrection in the slave states, have produced many friends to the society in the south: and the satisfactory accounts of the prosperity and happiness of the negroes on their original soil, have turned other opponents into friends. Many thousand slaves in Kentucky and other states, have been offered their freedom, without compensation from any quarter, as soon as the funds of the society would admit of their being

§ Mr. Clay's Address to the Kentucky Colonization Society.

embarked for Liberia; while several of the state legislatures have resolved to devote a large sum annually, to enable the free blacks to join their brethren in the new republic.^b Indeed, within the last few months, the prospect of the unfortunate African race has brightened, in a manner calculated to excite the highest hopes for their future destiny.

We should deem it insulting to our readers to enter into any discussion on the subject of slavery. As a principle, the whole civilized world, except the actual proprietors (and indeed very many of them also), have utterly abandoned it long since; and if we are sufficiently impressed with the evils that might result to the slaves themselves not to recommend immediate and universal emancipation, we

^b "The Virginia House of delegates have passed the bill making appropriations for the removal of free negroes from that state to Liberia, by a vote of seventy-nine to forty-one. It appropriates 35,000 dollars for the present year, and 90,000 dollars for 1833, besides 10,000 dollars for a temporary shelter at Liberia. This is the first time that any member of our confederacy, coming fairly within the list of slave-holding states, has commenced a series of efforts designed eventually to free itself from the curse of slavery."—*New York Mercury*, Feb. 22, 1832.

"We have read, with much interest, an abstract of the bill reported to the Maryland house of delegates, on the 15th instant, on the subject of free negroes and slavery. Its leading provisions we will endeavour to state in a few words:—In the first place it enacts that no free negro or mulatto shall emigrate to, or settle in the state of Maryland, under heavy penalties, and ultimate liability to be sold as a slave. 2. That after the 1st of June next, no slave shall be brought into the state, either for sale or to reside, under penalty of forfeiture. 3. It appropriates 100,000 dollars for the removal of free blacks now in the state, to be borrowed by the state treasurer, at five per cent, redeemable in fifteen years; and directs a tax of 10,000 dollars per annum to be levied upon the different counties for the payment of the principal and interest. Said 100,000 dollars to be apportioned among the several counties according to the ratio of the free black population in each, agreeably to the census of 1830. If any county refuses to be taxed, (and it has the liberty of so doing,) it shall receive no portion of the money raised, and the amount to be raised shall be proportionally diminished. Said 100,000 dollars to be applied to the removal of free blacks, in the following order:—

"1. Healthy free coloured persons, of both sexes, over the age of eighteen, consenting to remove to Liberia and never to return to this state. Free coloured persons, under the age of eighteen, consenting to remove or not consenting, whose parent or parents, if any living, consent to their removal. Free coloured persons, under eighteen, neither of whose parents are living, and who are bound out, with or without their consent; and if bound out, with the consent of their master or mistress, to whom they are bound. Free coloured persons of the description mentioned in the first seven sections of this act; that is, persons hereafter manumitted, by deed or by will."

"4. Slaves hereafter emancipated by deed, manumission, or will, to become the property of the State, unless fifty dollars each be paid by the owners or other persons for their removal to Liberia. In case of neglect by the person contracting to pay the fifty dollars, the slave, by becoming indentured till his wages shall net fifty-five dollars, may redeem himself. 5. It is however provided, that emancipated slaves shall not become the property of the state, if the owners agree with the State Colonization Society, or American Colonization Society, to remove them to Liberia. But their emancipation will not be acknowledged by the state, until they have actually departed from its limits; and will become void in case of their return within three years, except for a sojourn not exceeding ten days. 6. All free persons of colour are required to be registered, and to pay a capitation tax of one dollar fifty cents per annum. 7. It is declared unlawful to sell spirituous liquor to a slave, without a written authority from his overseer; or to a free person of colour, without a permit from a justice of the peace in the county where he resides. The licence of retailers to be forfeited by a breach of this enactment, at the discretion of the judges of the county courts, or, in their recess, by the judges of the Orphan's Courts."

are at a loss to conceive on what just principle it can be refused, if demanded by the parties themselves. The person of man equitably cannot become the property of another against his own consent: the negro slaves have, therefore, an absolute right over their own persons: it is matter of discretion with them when and where they may choose to assert that right; but we put it home to the conscience of those who have solemnly declared,—“We hold these truths to be self-evident: that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty, and the pursuit of happiness: that to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles, and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness:”—we put it home, we say, to those who avow such principles, how much less a crime than murder is committed, if death is inflicted on a man because he attempts to obtain that liberty which is as unalienable as life itself.

Before entering on a description of the condition of the negroes in the slave states, it is proper to remind the reader that the question of slavery is not one which can be justly held to affect the character of the general government, or of the people at large. It does not rest with the former, because the question, with others of a similar character, was referred by the constitution (and it was impossible to form a union of the states on any other principle) to the decision of each separate state; nor can it justly lie upon the people, as the great majority deplore the evil, and have abandoned it. Of the thirteen original states, the local legislatures of seven have abolished slavery; namely, Massachusetts, New Hampshire, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. Since the declaration of independence, eleven new states had been added to the Union in 1830; slavery was abolished in Maine, while it formed a part of the state of Massachusetts; the state of Vermont has since abolished slavery, and in the states of Ohio, Indiana, and Illinois, it was prohibited at their formation. Thus, of the twenty-four states which then constituted the Union, nine had abolished slavery, and three had prohibited its introduction; making altogether twelve free states out of the twenty-four.

The only instance in which the general legislature has appeared to neglect a fair opportunity of repressing or preventing the extension of this direful evil, occurred in the admission of the state of Missouri. In the contention on this subject, the most violent of the democratic party, among whom Mr. Jefferson was conspicuous, sacrificed their consistency by perpetuating slavery in that large portion of the republic, lest they should infringe in the slightest degree on their favourite principle

of "state sovereignty." It is certainly much to be regretted, that a sufficient number of the representatives from the free states could have been induced to lend their support to this view of the subject, to secure a majority; but it is some consolation to reflect, that most of them were rejected by their constituents at the next election.

The slave states may be divided into two classes—the breeding states, and the planting states. Among the former are principally Virginia, Maryland, Kentucky, and Tennessee: the latter, South Carolina, Georgia, Alabama, and Mississippi. In the former the condition of the negroes is generally much more tolerable than in the latter; in point of physical comfort, probably superior to the condition of the greater part of the labouring population of Europe. The slave owners, more prudent—perhaps more benevolent—than many of the English aristocracy, allot their slaves portions of ground on which they grow corn, melons, and other vegetables; and their hours of labour are not excessive. Still their moral state, for the most part, is awfully degraded, and the state of the whites, in many instances, equally so. "There must doubtless," observes Mr. Jefferson, "be an unhappy influence on the manners of our people, produced by the existence of slavery among us. The whole commerce between master and slave is a perpetual exercise of the most boisterous passions; the most unremitting despotism on the one part, and the most degrading submission on the other. Our children see this, and learn to imitate it; for man is an imitative animal. This quality is the germ of all education in him. From his cradle to his grave he is learning to do what he sees others do. If a parent could find no motive, either in his philanthropy or his self-love, for restraining the intemperance of passion towards his slave, the presence of his child should always be sufficient. But generally it is not sufficient. The parent storms, the child looks on, catches the lineaments of wrath, puts on the same airs in the circle of younger slaves, gives a loose to his worst passions, and thus nursed, educated, and daily exercised in tyranny, cannot but be stamped with its odious peculiarities. The man must indeed be a prodigy who can retain his manners and morals undepraved by such circumstances. With what execration then should the statesman be loaded, who, permitting one-half of the citizens thus to trample on the rights of the other, transforms those into despots and these into enemies. He destroys the morals of the one part, and the *amor patriæ* of the other. For if a slave can have a country in the world, it must be any other in preference to that in which he is born to live and labour for another." But there are more grievous immoralities still. "The young men of a family," says a recent traveller, "are allowed to cohabit with the domestic slaves, who, from being mulattoes, are in general preferred to the pure negresses. Some of these girls are uncommonly handsome, and have but very little black blood in them. Indeed I have seen some of these female slaves, who, being three or four generations removed

from the negro, were nearly as white, and fully as good-looking as the ladies they waited upon. All these spurious generations are slaves, liable to be sold, and often actually sold to negro drivers, who again sell them to some one else for mistresses. Indeed, in the southern states the ladies would be very angry, and turn any one out of society, who kept a white woman for his mistress; but would not scruple even to marry him if he had a coloured one, and a whole family of children by her. But what should we say in Europe if a man sold his own natural son, brother, or sister? This however takes place quite commonly, and as a matter of course. I could mention the name of a lady not a hundred miles from Washington, who lets out as a servant her own natural brother, a good-looking mulatto. Indeed, it is a saying in Kentucky, that 'many a man makes his own *niggers*;' for many a slave-holder, in gratifying his passions, increases, at the same time, what may be called his live stock."

An extensive slave-trade is carried on between these regions and those western parts of the states of Virginia, Maryland, the Carolinas, and Georgia, in which they find it more profitable to breed slaves for the market, than to raise the appropriate produce of the soil. "I have already mentioned,"ⁱ says Mr. Hodgson, "the numerous *gangs* which I continually fell in with, on my route from the Atlantic to the Gulf of Mexico; and I have understood that, from Maryland and Virginia alone, from 4000 to 5000 per annum are occasionally sent down to New Orleans, a place, the very name of which seems to strike terror into the slaves and free negroes of the middle states. Instances are not rare of slaves destroying themselves, by cutting their throats or other violent means, to avoid being sent to Georgia or New Orleans. An instance is on record of a poor black woman, in the winter of 1815, torn from her husband and destined for transportation to Georgia, throwing herself at day-break from the third story of a tavern in Washington; and slaves are marching in open day in manacles, on their melancholy journey southward, past the very walls of the capitol, where the senate of this free republic conduct their deliberations. Indeed, this trade between the middle and southern states has given rise to the horrible practice of kidnapping free black men, and has introduced into the heart of a country pre-eminently proud of her free institutions, a sort of tegral, or man-stealing, which one had hoped was confined to the deserts of Africa. It is stated by Mr. Torrey, a gentleman of the medical profession, in a work which he has published, called 'American Slave-Trade,' that under the existing laws, if a 'free-coloured man travels without passports certifying his right to his liberty, he is generally apprehended, and frequently plunged (with his progeny) into slavery, by the operation of the laws.' He observes, 'The preceding facts clearly exemplify the safety with which the free-born (black)

inhabitants of the United States may be offered for sale, and sold, even in the metropolis of liberty, as oxen, even to those who are notified of the fact, and are, perhaps, convinced that they are free.”

Of the estimation in which slaves are held, in the more southern states especially, Mr. Hodgson gives us an appalling account. It is well he prefaces his statements, by an assurance that, on so serious a subject as this, he is particularly guarded in mentioning nothing for which he has not unquestionable authority. “The following fact,” says he, “rests on the evidence of my own senses. At a dining party of five or six gentlemen, I heard one of the guests, who is reputed a respectable planter, say, in the course of conversation, that he shot at one of his slaves last year, with intent to kill him for running away; that on another occasion, finding that two runaway slaves had taken refuge on his plantation, he invited some of his friends out of town to dinner and a *frolic*; that after dinner they went out to hunt the slaves, and hearing a rustling in the reeds or canes in which they believed them to be concealed, ‘they all fired at their *game*, but unfortunately missed.’ Does not your blood curdle? Yet he did not appear to be sensible that he was telling any thing extraordinary, nor to understand the silence of astonishment and horror. I could extend this sad recital, but why should I harrow up your feelings? No incident could supply, indeed imagination could scarcely conceive, a more striking and decisive proof than is afforded by the last anecdote, of the degree to which the negro is degraded in the public estimation. If any place is allotted to him in the scale of humanity, it is so low, and so distant from that occupied by his white brethren, as frequently to exclude him in a great measure from their sympathy. The planter whom example and habit have led to believe that he must render the negro industrious by the use of the lash and obedient by shooting the refractory, acts as you and I should doubtless have acted under similar circumstances: but is not that a horrible system, which so deranges the feelings of men of education and liberal attainments? Nothing but familiarity with the degradation and sufferings of the negroes could induce their white masters, many of whom are respectable, liberal, and humane, in the ordinary relations of life, to tolerate the constant use of the *lash*. You see the overseer continually stalking about with his long-lashed whip, while the poor slaves are toiling, with little rest or respite from morn to night—for here I observe they seem to work many hours longer than in Carolina, and the system is considered far more severe. A friend told me, that while walking on the *Levéé*, at New Orleans, he has distinctly heard the successive lashes on the back of a poor slave on the other side of the Mississippi, which is half a mile across. Another friend who was riding with me here told me, that one evening lately, spending a night at the house of a planter who was from home, the planter’s wife said how glad she was to see him, as she was just going to flog one of her slaves. and would

he be kind enough to save her the trouble. My friend, however, who was from the north, had not been accustomed to the office, and did not choose to take the hint, broad as it was. The lady resumed the subject before supper, and again as soon as the cloth was drawn, when my friend told her he could not think of complying with her wishes. She was extremely offended, and evinced her displeasure so openly, that had there been another house within a few miles, my friend would have withdrawn. Before bed-time, however, another traveller arrived, to whom the lady complained aloud of the ungentlemanly conduct of her first guest, and who at once undertook the office, without inquiring into the offence. You will not wonder, after these details, that a white man considers it a degradation to eat with a black one; and that if you take a white servant to a planter's or an inn, he is obliged to have separate meals, and, where it is practicable, an apartment separate from the black servants. I remember, that as the mail stopped in Virginia and Carolina, I generally saw a little white boy stuffed in one corner, and for a long time without being particularly struck with the circumstance. At last, something leading me to inquire into the cause, I found there was a law prohibiting the mail bags being entrusted to a black man. Now, as the coachmen were negroes, this little lad was stuffed in as a matter of form, as the nominal white guard of the United States' mail bags." Well may Mr. Jefferson exclaim, "I tremble for my country when I reflect that God is just; that this justice cannot sleep for ever; that considering numbers, nature, and natural means only, a revolution of the wheel of fortune, an exchange of situation, is among possible events; that it may become probable by superior interference. The Almighty has no attribute which can take side with us in such a contest."

The slave owners are generally much opposed to the instruction of their slaves. The following paragraph, copied from a Charleston paper of 1823, will give some idea of the feelings on this subject. "The grand jury of Charleston present as a nuisance the numbers of schools which are kept within the city by persons of colour; and believe that a city ordinance, prohibiting under severe penalties such persons from being public instructors, would meet with general approbation." As the blacks are most carefully excluded from all schools kept by *white* persons, where their presence would be considered as a sort of contamination, both by the master and the scholars, this bill of the grand jury goes to deprive them at once of all instruction. "I lately saw in the newspapers," says Mr. Hodgson, "a notice from the mayor of one of the principal cities in the south, presenting an extract from the law which prohibits the instruction of slaves, expressing his regret to observe that this law had been infringed upon in several instances lately, by teaching the slaves to read and write, and declaring the intention to inflict the penalty, if the offence should be repeated. And yet, in the

northern states, among the most interesting objects which I saw were the schools, in which some hundreds of free black Africans were receiving the elements of a somewhat liberal education, and where they exhibited both industry and intelligence."

Respecting the treatment of slaves, Basil Hall has furnished some interesting particulars; and, however justly complaints may be made of this traveller's unfavourable representations of the United States on some points, is certainly far from being unfair on this subject. "With respect to the amount of labour performed by the slaves in the culture and preparation of cotton, I may mention, that in all cases of tasking—whether this term be applied to field or to house-work—a three-quarter, a half, or a quarter hand, is required to work only that proportion of a task per day. Applications are made every year by the slaves to the overseer, or to their master, to reduce the quantum of labour from the higher to the lower grades. This method of tasking, or defining their work, is that which the slaves prefer to any other. Active hands get through their proportion generally by the middle of the day, others in two-thirds of the day, after which they are left to employ the balance, as it is rather well called, or what remains of daylight, in their own fields, in fishing, or in dancing;—in short, as they please. The driver puts them to work in the morning, and sees that all is properly executed before they go away. The young slaves, of course, come in as one-quarter hands, and are gradually raised. Every negro knows his rate and lawful task so well, that if he thinks himself imposed upon by the driver, he appeals at once to the master.

"The stated allowance of food to every slave over fourteen years of age, is nine quarts of Indian corn per week, and for children, from five to eight quarts. This is said to be more than they can eat, and the surplus is either sold, or is given to the hogs and poultry, which they are always allowed to rear on their own account. A quart of salt monthly is also allowed, and salt fish, as well as salt beef occasionally, but only as a favour, and can never be claimed as a right. A heaped-up bushel of sweet potatoes is considered equal to the above allowance, and so are two pecks of rough, that is, unhusked rice or paddy; but this is not thought so substantial a food as the Indian corn. On the plantation to which these details refer, the negroes are allowed three holydays at Christmas, when they have plenty of beef and whisky. At the end of this period, they are often, as I am told, completely done up with eating, drinking, and dancing. On that plantation they are allowed to have as much land as they choose to plant, and the master's family is supplied entirely with poultry and eggs from this free work of the slaves, who are regularly paid at the following rates:—eggs, $12\frac{1}{2}$ cents (*6d.*) a-dozen; chickens, $12\frac{1}{2}$ cents (*6d.*); fowls, 20 to 25 cents, or about a shilling a-pair; ducks, twice as much. But they are left at liberty to carry their poultry to a better market, if they can find one. The proceeds are mostly laid out in dress and trinkets.

"The slaves are generally dressed in what is called white Welsh plains, for winter clothing. This costs about 80 cents, or 3s. 6d. a-yard, in Charleston. They prefer white cloth, and afterwards die it of a purple colour to suit their own fancy. Each man gets seven yards of this, and the women six yards,—the children in proportion. Each grown-up negro gets a new blanket every second year, and every two children in like manner one blanket. The men receive also a cap, and the women a handkerchief, together with a pair of strong shoes, every winter. A suit of homespun cotton, of the stuff called Osnaburghs, is allowed to each person for summer dress.

"It is very disagreeable to speak of the punishments inflicted on these negroes, but a slave-holder must be more or less of a despot in spite of himself; for the laws neither do, nor can they, effectually interfere in the details of discipline. The master must enforce obedience to his orders, and maintain general subordination, however kind-hearted he may be, by the only means which the nature of the whole system leaves in his power. The slave has, unfortunately, so few generous motives to stimulate him to work, that fear is necessarily made to enter, as the chief ingredient, into the discipline. It is a great mistake, however, to suppose that slaves labour sulkily, and under the perpetual exercise of the lash. On the contrary, from constant habit, they do, in point of fact, go about their work with cheerfulness; and, as their tasks are limited to what can be readily performed, it is in the power of every slave who chooses, to escape punishment for any length of time. But it seems to be indispensable to the working of this strange piece of moral machinery, that every negro should be made fully sensible that punishment will follow neglect or crime. Neither men nor women, it is most melancholy to know, can ever be exempted with safety, upon any occasion, except that of sickness, from the operation of this stern but inevitable rule. When slaves are under the management of injudicious, unmethodical, dissipated, ill-tempered, or naturally cruel masters, of course the evils which ensue are too horrible to think of."

We shall conclude the descriptive touches of this revolting subject with Captain Hall's description of the sale of a slave by auction. "After various delays, the slave was put up to auction at the end of the passage, near which four or five persons had by this time collected. There was a good deal of laughing and talking amongst the buyers, and several jests were sported on the occasion, of which their little victim took no more notice, than if he had been a horse or a dog. In fact, he was not a chubby shining little negro, with a flat nose, thick lips, and woolly hair; but a slender, delicate-looking youth, more yellow than black, with an expression every way suitable, I thought, with the forlorn situation in which he was placed—for both his parents, and all his brothers and sisters, he told me, had been long ago sold into slavery, and sent to the southern states—Florida, or Alabama—he knew not where! 'Well, gentlemen,' cried the deputy-marshal, 'will you give

us a bid? Look at him—as smart a fellow as ever you saw—works like a tiger!’ One of the spectators called out, ‘Come, I’ll say twenty-five dollars;’ another said thirty-five, another said forty, and at last one hundred dollars were bid for him. From the spot where I was standing, in the corner, behind the rest of the party, I could see all that was passing. I felt my pulse accelerating at each successive offer, and my cheek getting flushed, for the scene was so very new that I almost fancied I was dreaming. The interest, after a time, took a different character, to which, however, I by no means wished to give utterance, or in any shape to betray; but at this moment the deputy-marshal, finding the price to hang at one hundred dollars, looked over to me and said, ‘Do you give us a bid, Sir—won’t you?’ My indignation was just beginning to boil over at this juncture, and I cried out in answer to this appeal, with more asperity than good sense or good breeding, ‘No! No! I thank God we don’t do such things in my country!’ ‘And I wish with all my heart,’ said the auctioneer, in a tone that made me sorry for having spoken so hastily—‘I wish we did not do such things here.’ ‘Amen!’ said several voices. The sale went on. ‘We can’t help it, however,’ observed the marshal; ‘we must do our duty. One hundred dollars are bid, gentlemen! One—hundred—dollars!’ The ominous personage with deep-set eyes now called out, to my horror and that of the poor boy, ‘120!’ Just at this moment a farmer who had come from the country, and seemed pleased with the looks of the youth, nodded to the auctioneer, and said, ‘130.’ My tall friend now said, ‘140,’ which was echoed by the new comer, with, ‘142!’ Upon which these two bidders, having exchanged looks, walked apart for a couple of minutes, whispering something, which I did not hear. I observed the farmer nod several times, as if assenting to some compromise. They now returned, and the tall gentleman said, ‘I will give 143 dollars for him,’ while the other, though more than once appealed to by the auctioneer, spoke no more. ‘143 dollars are bid for this lad! 143 dollars—once! twice! Are you all done, gentlemen? Thrice! The lad is yours, sir,—a slave for life!’ I patted the boy on the head, wished his new master, my tall friend, all joy of his bargain, and ran off as fast as I could down one of the avenues, hoping, by change of place to get rid of the entanglement of many unpleasant thoughts which crowded upon me during the sale; and perhaps willing, by a good scamper over the ground, to satisfy myself of the identity of my own freedom.

“I asked a gentleman, afterwards, whether such things were common in that part of the country. Instead of answering my question, he picked up a newspaper at random, and pointed out the following advertisement:—

“MARSHAL’S SALE.

“By authority of a writ of *fieri facias*, issued from the clerk’s office of the circuit court of this district, for the county of Washington, to me directed, I shall expose to public sale, for

cash, on Monday, 31st instant, the following slaves, viz. :—Charity, Fanny, Sandy, Jerry, Nace, Harry, Jem, Bill, Anne, Lucy; Nancy and her five children, George, Penn, Mary, Francis, and Henry; Flora and her seven children, Robert, Joseph, Fanny, Mary, Jane, Patty, and Betsy; Harry; and also four mules, four carts, one carriage and harness. Seized and taken in execution, as the goods and chattels of John Threlkeld, and will be sold to satisfy a debt due by him to the bank of the United States, use of the United States, and the bank of the United States.

“ Sale to be at the dwelling of Alexander Burrows, and commence at eleven o’clock, A.M.

“ TENCH RINGGOLD,

Dec. 24—dts.

“ Marshal of the district of Columbia.”

“ I should be doing the inhabitants of the district of Colombia great injustice, and also leave a needless degree of pain on the minds of others, were I not to mention the sincere desire which is felt, and, perhaps, as far as possible, acted upon, in that quarter, to remedy, if not altogether to remove an evil, apparently so inconsistent with the principles applied to every thing else in America.”

If slavery be injurious in its moral influence, it is no less so in its political. It decidedly impedes the career of national competition, and renders states more poor and feeble, instead of more wealthy and more powerful—an admirable proof of the presiding care of a moral governor, that, on a large scale, injustice should always be attended with injury to the oppressor. Slavery is a complete check to the building of towns and villages, because it almost entirely prevents a demand for labour or merchandize. Say a man possesses forty slaves. All these unhappy beings are clothed and fed in the coarsest and cheapest manner, generally on a little salt-fish and Indian corn. They live in huts on the estate of their master, and having nothing to sell, can buy nothing. Each proprietor has his shoemaker, tailor, carpenter, &c., on his own estate—all slaves. These are either taught by other slaves, or are, when young, sent by their masters as apprentices to a white artizan at some large town. If, therefore, a white settler should go to one of the slave states, what could he do? He could not, if an artizan, find any employment; for there is no demand for his services. If he should buy land, he could not cultivate it without becoming a slave-holder, and this would require considerable capital. Hence, in the *slave states*, the *towns*, as they are called, consist of little more than a tavern, a small store, and a blacksmith’s shop. We speak, of course, of the towns in the interior, where there is no foreign commerce.

The difference between a slave and a free state is no where more sensibly felt than in crossing from Ohio into Kentucky. Here the really indefatigable industry of the freeman, is seen contrasted with the negligence and slovenliness of the slave. Had Louisville been free and Cincinnati enslaved, how different would their respective features have now been!

There is no motive which ought to influence an honourable mind, which does not bear immediately and forcibly against the system of involuntary servitude. It is true, that if the crime and the mischief of slavery are great, the remedy is proportionably difficult. The immediate sacrifice required is, doubtless, a fearful penalty—a striking instance of the retribution of the primary wrong on the “third and fourth generation.” But the evil must be met,—met boldly and decidedly; and we would close this chapter, by fearlessly telling the present race of slave-owners, that if they do not effectually remedy the dreadful evil, they are guilty of the destruction of the very parties whose interest they are so unwilling to sacrifice,—their own and their children’s. They probably know the hazards to which we are unwilling more explicitly to refer. Better for them would they abandon their glittering but unrighteous possession, and apply themselves to get an honest living by their own labour, than live in affluence, with the elements of ruin gathering daily more thickly around their devoted heads.

BOOK V.

TOPOGRAPHY.

CHAPTER I.

NEW ENGLAND.—NEW HAMPSHIRE—VERMONT—MASSACHUSETTS—RHODE ISLAND—CONNECTICUT.

IT is our design in this, the closing department of our work, to give a concise but clear account of the situation, extent, natural and physical geography, internal improvements, manufactures and commerce, education, religion, civil divisions, and population, of each state. We trust the former portions of this volume have conveyed a correct idea of the state of the republic generally, and would enable an inquirer to determine on the propriety of a removal thither; alike correcting unjust prejudices and unreasonable expectations, and preventing disappointment on his arrival in the transatlantic world. The remaining pages will afford, to a considerable extent, such an outline of the local peculiarities of the several states of which the Union is composed, as may in some degree enable the emigrant to select that section of the country most suited to his circumstances and pursuits. We shall commence with the most northern state, deeming a geographical preferable to an alphabetical arrangement. We have not attempted, however, any classification; as we agree with Mr. Darby, when he says, "Many arbitrary subdivisions have been attempted, with a view to simplify the engrouping of the United States, but they have appeared to me in every instance productive of confusion. The artificial lines of the political subdivisions are drawn with so little regard to natural features, that all relative classification into eastern, western, southern or central states, superinduces so many exceptions as to render the rule worse than dubious."

MAINE.

The State of Maine is situated between $43^{\circ} 5'$ and $48^{\circ} 3'$ north latitude, and extends from $66^{\circ} 49'$ to $70^{\circ} 55'$ west longitude. It is bounded by Lower Canada on the north, New Brunswick on the east, the Atlantic on the south, and New

Hampshire on the west. The map exhibits the positions in controversy between the governments of the United States and Great Britain, respecting the extension of Maine beyond the sources of the St. Croix river. The decision by his Dutch majesty is generally considered to be unsatisfactory. The greatest length of Maine is, from south-west to north-east, 350; mean breadth, 92; and area, by the rhombs, 32,194 square miles.

The surface of this state differs essentially from any other part of the United States. The coast between Casco Bay and Passamaquoddy is excessively indented by long projecting points, and by innumerable islands, between which are discharged the fine streams of Kennebeck and Penobscot, with many others of less volume, affording an unequalled variety of harbours. Upon this very broken coast is poured a tide of from 20 to 40 feet. So powerful is the ocean swell, as to break the winter ice to fragments, and to preserve open the harbours of Maine, whilst those several degrees more southward are closed. The interior of the state is a congeries of hills of great variety of form, without any mountain ridges of much elevation or mass, with intervening lakes and streams. With Maine, indeed, commences that lake section of North America, which extends to the utmost known northern regions of the continent. Though not very elevated, the interior of Maine rises so rapidly from the sea-coast, as to preclude the flow of the tide far inland, though few other states of the Union are more completely traversed by navigable rivers.

Extending over 5° of latitude, and differing in level at least 800 feet, Maine presents at its extremes great diversity of climate: the air, however, in all parts of the country is pure and salubrious. The summers in most parts are favourable to the growth of all the vegetable productions of the northern states. In some places, however, Indian corn, and some other plants of a more tender kind, are frequently injured, and sometimes destroyed, by frosts late in the spring and early in the autumn. The cold of winter is severe, yet the serenity of the sky, and the invigorating influence of the atmosphere, during the same season, make amends in some degree for the severity of the weather.

The tract of country along the sea-coast, from ten to twenty miles wide, embraces all the varieties of sandy, gravelly, clayey, and loamy soils, frequently interspersed at short distances; seldom very rich, in many places tolerably fertile, but generally poor. Of this section Indian corn, rye, barley, grass, &c., are the principal productions. In the tract lying north of this, and extending fifty miles from the sea in the western, eighty in the central, and ninety in the eastern part, the same kinds of soil are found, but they are less frequently diversified, and generally more fertile. The surface rises into large swells of generally good soil, between which, on the margin of the streams, are frequently rich intervals, and in other places sandy or gravelly pine plains, or spruce and cedar swamps. Of this section also the principal productions are grass, Indian

corn, wheat, barley, rye, flax, &c. The country beyond the limits above specified is but little settled. It exhibits great diversities in the appearance of its soil, in the growth of timber, and in climate. The land on the Kennebeck, and between this river and the Penobscot, is accounted the best in the state. It is well adapted to the various purposes of agriculture, and as a grazing country it is one of the finest in New England.

Maine enjoys great facilities for commerce. All the settled parts of the country lie near a market, and the produce of the farmer is readily exchanged for money at a good price. The principal article of export is timber. Vast quantities of boards, shingles, clapboards, masts, spars, &c., are transported to the neighbouring states, to the West Indies, and to Europe. Much of the firewood consumed in Boston, Salem, &c., is brought from Maine. Dried fish and picked salmon are considerable articles of export. Beef, pork, butter, pot and pearl-ashes, and some grain, are also among the exports. Great quantities of lime are annually exported from Thomastown. Limestone and bog-iron ore abound in many places. The principal manufactures consist of cotton and woollen cloths, hats, shoes, boots, leather, iron, nails, distilled spirits, and cordage.

Bowdoin College, in Brunswick, was incorporated in 1794. It has four professors, two tutors, about 120 students, a complete philosophical apparatus, and a library of nearly 5,000 volumes. The college is endowed with five townships of land. The Maine charity school, at Bangor, was incorporated in 1814. Its design is to educate young men for the ministry in a shorter time than is usual at other seminaries. It is under the direction of two professors and a preceptor; and in 1818, had nineteen students. There is a Literary and Theological Institution under the direction of the Baptist denomination, at Waterville. In was opened in 1818, with twelve or fifteen theological students. Free schools are kept in every town. By a permanent law, each town is compelled to raise for this object a sum equal to forty cents for each individual, annually. The sum raised and expended is about 120,000 dollars.

The Baptists have 210 churches, 136 ministers, 22 licentiates, and 12,936 communicants; the Congregationalists, 156 churches, 107 pastors, and 9,626 communicants; the Methodists, 56 ministers, and 12,182 communicants; the Free-will Baptists, about 50 congregations; the Friends, about 30 societies; the Unitarians, 12 societies, and 8 ministers; the Episcopalians, 4 ministers; the Roman Catholics, 4 churches; the New Jerusalem Church, 3 societies; and there are some Universalists.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Population.	Distance.	
					A. ^a	W. ^b
Cumberland, s.w. ^c	49,445	60,113	Portland ^d	12,601	53	542
Hancock, s.	17,856	24,347	Castine	1,155	78	676
Kennebec, M.	40,150	52,491	AUGUSTA	3,980		595
Lincoln, s.	46,843	57,181	{ Wiscasset	2,143	24	589
			{ Topsham	1,564	31	569
			{ Warren	2,030	44	617
			{ Paris	2,337	42	581
Oxford, w.	27,104	35,217	Bangor	2,868	66	661
Penobscot, N.	13,870	31,530	Norridgewock	1,710	28	623
Somerset, N.W.	21,787	35,788	Belfast	3,077	40	641
Waldo, s.	22,253	29,790	Machias	1,021	143	745
Washington, E.	12,744	21,295	{ York	3,485	99	500
York, s. w.	46,283	51,710	{ Alfred	1,453	86	513
Total	298,335	399,462				

Portland, the capital of the state, and much the largest town, is situated on a peninsula in Casco Bay. It is well located for commerce, having an extensive and thriving back country, and one of the finest harbours on the continent, being deep, safe, capacious, easy of access, and seldom frozen over. The amount of shipping in 1818 was 27,770 tons. Brunswick is thirty miles north-east of Portland, on the Androscoggin, at the falls; population in 1820, 2,954. Bath is on the west side of Kennebeck river, at the head of winter navigation, sixteen miles from the sea, and thirty-five north-east of Portland. It owns more shipping than any town in the state, except Portland. Wiscasset is on the Sheepscot, eight miles north-east of Bath. The river is navigable to this place for the largest vessels, and the harbour is generally open throughout the winter. Waldoborough, twenty-two miles east of Wiscasset, has a large amount of shipping, employed principally in the coasting trade. Castine is on a promontory, on the east side of Penobscot Bay. It has an excellent harbour for any number of ships of the largest size, and is accessible at all seasons of the year. It has great strength from its natural situation, and, if proper batteries were erected, might almost bid defiance to attack. These circumstances, together with its favourable situation for the entry of prizes, and, above all, its geographical position, enabling it to communicate by a few days' sail with Halifax, and, by a short route up the Penobscot, with Quebec, giving a command of all the intermediate country from the Penobscot to the St. Croix, render it of the highest consequence as a military station. Bangor is a flourishing town, thirty-five miles north of Castine, on the west

^a From Augusta.^b From Washington.^c The small capital letters annexed to the counties indicate their situation in the several states; as, E., W., N., S., N. E., N. M., E. M., &c., east, west, north, south, north-east, north of middle, east of middle, &c. The seats of government of the different states are also printed in small capitals.^d Portland has heretofore been the seat of government; but Augusta became the political metropolis in the year 1832.

side of the Penobscot. It is finely situated for commerce, being at the head of the navigation on the largest river in the state. Machias is near the south-east corner of the state, on Machias Bay, at the mouth of Machias river. It is a thriving town, and exports large quantities of boards, shingles, spars, &c. There are twenty-six saw-mills in the town, which cut on an average upwards of 10,000,000 feet of boards annually. Lubeck, or Eastport, is a new and flourishing town, on a peninsula at the southern extremity of Passamaquoddy Bay. York is an ancient town on the coast, near the south-west extremity of the state. Hallowell is a flourishing town on Kennebeck river, more than forty miles from its mouth. Vessels of 150 tons ascend to this place. Augusta is two miles above Hallowell. The most flourishing towns on the Kennebeck, above Augusta, are Vassalborough, Waterville, and Norridgewock.

NEW HAMPSHIRE.

New Hampshire has Canada for its northern boundary, Maine for its eastern, Massachusetts on the south, and Vermont on the west;° the Atlantic washes its south-eastern coast for a distance of twenty-nine miles. The mean length of New Hampshire is very nearly that of its difference of latitude, two and a half degrees, or about 174 statute miles; area, 8,700 square miles; and mean breadth, fifty miles.

This state, for its narrow extent, differs more in relative elevation than any other state of the Union, and, of course, the extremes of temperature are in correspondent excess. The Atlantic border is generally a sandy beach, but followed by so rapid a rise in the surface of the interior country as to arrest the tides within twenty miles from the ocean. The mountains of the state are central, with a zone of finely diversified hill and dale country around. Grand Monadnoc rises to an elevation of 3,254 feet; Moosehillock to 4,636 feet; but some of the summits of the White Mountains attain to 7,300 feet, and are considerably the most elevated masses of the Apalachian system. As a whole, the physiognomy of New Hampshire is bold, prominent, and often sublime. The White Mountains are frequently visited by travellers. Mount Washington is usually ascended from the south-east. After climbing the side of the mountain for some distance, the forest trees begin to diminish in height, till, at the elevation of about 4,000 feet, you come to a region of dwarfish evergreens, about the height of a man's head, which put forth numerous branches, and surround the mountain with a formidable hedge a quarter of a mile in thickness. On emerging from this thicket, you are above all woods, at the foot of what is called the bald part of the mountain, which is very steep, and consists of a huge pile of naked rocks. After attaining the summit, the traveller is recompensed for his toil, if the sky be serene, by a most noble and extensive prospect: on the south-east there is a view of the

° Longitude, 70° 40' to 72° 28'; latitude, 42° 41' to 45° 11'.

Atlantic Ocean, the nearest part of which is sixty-five miles distant, in a right line ; on the south, Winnipiseogee Lake lies in full view ; on the south-west is the lofty summit of Moosehillock ; and far away in the horizon, is the Grand Monadnoc. The barren rocks which extend a great distance in every direction from the summit add a melancholy cast to the grandeur of the scene. The Notch, or Gap, in the White Mountains, is also frequently visited as a curiosity. It is on the west side of the mountains, near the source of Saco River. It is a deep and narrow defile, in one part only twenty-two feet wide. The mountain appears as if cloven quite to its base, perpendicularly on one side, and on the other at an angle of forty-five degrees. The road which has been made through this pass is crossed by the river Saco, which rushes rapidly down the sides of the mountain, and gives a picturesque effect to the scenery. Bellow's Falls are in Connecticut River, at Walpole. The whole descent of the river, in the space of 100 rods, is forty-four feet : there are several pitches, one above another, at the highest of which a large rock divides the stream into two channels, each about ninety feet wide. When the water is low, the eastern channel is dry, being crossed by a bar of solid rock ; and the whole stream falls into the western channel, where it is contracted to the breadth of sixteen feet, and flows with astonishing force and rapidity. A bridge is built over these falls, under which the highest floods pass without detriment to the structure.

The state of New Hampshire is subject to the extremes of heat and cold, but the air is generally pure and salubrious. Morning and evening fires become necessary from about the middle of September ; cattle are housed from the middle of November ; and, in the course of this month, the earth and rivers generally become thoroughly frozen, and covered with snow. The open country is usually cleared of snow in April ; but, in the woods, it very often lies in the northern part of the state till May.

There is a great variety of soil in this state ; a considerable proportion is fertile, and it is generally better adapted to grazing than tillage. The interval lands on the large rivers are esteemed the most valuable : these produce various kinds of grain in great abundance ; but the uplands of an uneven surface, and of a rocky, warm, moist soil, are accounted the best for grazing. The principal articles of produce are beef, pork, mutton, butter, cheese, wheat, rye, Indian corn, oats, barley, pulse, and flax. The number of neat cattle, in 1812, was calculated at 211,534 ; horses, 32,161 ; sheep, 364,892. Apples are abundant, and no good husbandman thinks his farm complete without an orchard ; other kinds of fruit are not extensively cultivated.

The principal articles of export are lumber, fish, beef, pork, horses, neat cattle, sheep, flax seed, and pot and pearl ashes. The manufactures of New Hampshire have of late greatly increased. There are now upwards of thirty cotton and woollen manufactories, and nine or ten paper-mills ; there is a glass manufactory in Keene, incorporated in 1814 ; there are establishments for the manufacture of iron in

Franconia ; there are, also, several furnaces for casting iron, hollow ware, &c. Among the towns where the most considerable manufacturing establishments are situated, are Exeter, Dover, Peterborough, Franconia, Pembroke, New Ipswich, Keene, &c.

Dartmouth College, at Hanover, was founded in 1769. Its officers are a president, seven professors, a lecturer on chemistry, a lecturer on anatomy, and two tutors. It has a good chemical apparatus, a philosophical apparatus, a valuable anatomical museum, and a library of about 4,000 volumes, besides two large society libraries belonging to the students. The funds of the college yield about 1,600 dollars a year, which, with the tuition, makes an annual income of about 4,000 dollars. The number of students is usually about 150, besides more than sixty medical students. The college takes its name from the earl of Dartmouth, one of its earliest and most generous benefactors. Phillips's Exeter Academy, at Exeter, was founded by the Hon. John Phillips, LL. D., in 1781. It is one of the oldest and most flourishing academies in New England. It has funds amounting to about 80,000 dollars ; a library of about 700 volumes, and a handsome philosophical apparatus. Its officers are a principal, a professor of mathematics and natural philosophy, and an assistant. The funds are appropriated, in part, to the support of indigent students.

The Congregationalists have 146 churches, 116 ministers, and 12,867 communicants ; Baptists, 75 churches, 61 ministers, and 5,279 communicants ; Free-will Baptists, 67 churches, 51 ministers, and 4 or 5,000 communicants ; Methodists, 30 ministers, and 3,180 communicants ; Presbyterians, 11 churches, 9 ministers, and 1,499 communicants ; Christians, 17 ministers ; Friends, 13 societies ; Universalists, about 20 congregations ; Unitarians, 10 ministers ; Episcopalians, 8 ministers Catholics, 2 churches ; Shakers, 2 societies ; and the Sandemanians, 1 society.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Population.	Distance.	
					C ^f	W. ^s
Rockingham, s. e. . . .	40,526	44,452	{ Portsmouth	8,082	45	491
			{ Exeter	2,759	39	474
			{ Dover	5,449	40	490
Strafford, e.	51,415	58,916	{ Gilmanton	3,816	20	500
			{ Gilford	1,872	30	504
			{ Rochester	2,155	40	500
Merrimack, m.	32,743	34,619	CONCORD	3,727		474
Hillsborough, s.	35,781	37,762	Amherst	1,657	30	448
Cheshire, s. w.	26,753	27,016	Keene	2,374	55	431
Sullivan, w.	18,628	19,687	Newport	1,913	40	467
Grafton, w.	32,989	38,691	{ Haverhill	2,153	37	509
Coos, n.	5,151	8,390	{ Plymouth	1,175	40	515
			{ Lancaster	1,187	116	558
Total	244,161	269,533				

^f From Concord.

^s From Washington.









THE NEW YORK STATE MOUNTAIN IN BEAUFORT TOWN

Population at different Periods.

Population.		Population.		Increase.		Slaves.
In 1701,	10,000	In 1790,	141,885			158
1730,	12,000	1800,	183,858	From 1790 to 1800	41,973	8
1749,	30,000	1810,	214,460	1800	1810	30,602
1767,	52,700	1820,	244,161	1810	1820	39,701
1775,	80,038	1830,	269,533	1820	1830	25,372
						0

Portsmouth, the largest town in the state, is on the sea-coast, near the mouth of the Piscataqua. The harbour is one of the best on the continent, having sufficient depth of water for vessels of any size, being easy of access, protected from every wind, and, owing to the rapidity of the tide, never frozen. It is so well fortified by nature, that only a small expense is necessary to render it perfectly secure from attack. On an island in the Piscataqua, opposite the town, an United States' navy-yard has been established. Concord, the capital of the state, is a flourishing town on the Merrimack, at the head of navigation, and well situated for trade. Much of the produce of the upper country is brought here, and carried down the Merrimack and the Middlesex Canal, to Boston. Dover is a flourishing town, at the head of the tide on the Cocheco, twelve miles north-west of Portsmouth. Exeter is a manufacturing town, at the head of the tide on Exeter River, fourteen miles south-west of Portsmouth. Keene is a pleasant town, in the south-west part of the state on the Ashuelot. The principal towns on Connecticut River, are Walpole, thirteen miles north-west of Keene; Charlestown, twelve miles north of Walpole; Hanover, the seat of Dartmouth College; Haverhill, twenty-seven miles north of Hanover, and Bath, adjoining Haverhill, at the head of boat navigation.

VERMONT.

Like the two preceding states, Vermont is bounded on the north by Lower Canada. Its eastern boundary is the Connecticut River, which divides it from New Hampshire. It has the state of Massachusetts on the south, and of New York on the west.^h Its length is 157 statute miles, mean width fifty-nine miles, area 9380 square miles.

Vermont is composed of two not very unequally inclined planes, with a chain of comparatively high mountains, extending the whole length of the state, in a direction north-north-east and south-south-west. Onion, La Moelle and Missisque rivers, all rise to the east of the high grounds, and pierce the Green Mountains in their western course into Lake Champlain: Otter River, on the contrary, rises west of the main chain, near the south-west angle of the state, and flows north-north-west into Lake Champlain. The water-courses of the eastern slope of Vermont enter the Connecticut River and have a brief course. Lake Champlain is only ninety feet elevated above the Atlantic tides. It is probable that many cultivated parts of

^h Longitude, 71° 33' to 73° 26'; latitude, 42° 44' to 45°.

Vermont are at least 1,000 feet; giving a difference in temperature of between two and three degrees of Fahrenheit, from change of level.

The climate is healthy, but subject to great extremes of heat and cold. Winter in its severity commences about the first of December, and continues till about the middle of March. During this season the weather is generally fair, and the cold more uniform and steady than in the other New England states. A large proportion of the soil in this state is fertile, and fitted to the various purposes of agriculture. It is generally deep, of a dark colour, rich, moist, warm, loamy, and seldom parched with drought. The low lands on the intervals are thought the best: bordering on these is usually a strip one or two miles wide, comparatively poor; beyond which the land recovers a fertility nearly equal to that on the rivers. Much of the land among the Green Mountains is excellent for grazing, and here are found many fine farms. Iron ore of good quality is found in several places. There are quarries of marble at Middlebury, Bennington, Arlington, Shaftsbury, Pittsford, and Swanton. There are also some lead and copperas mines. Wheat is extensively cultivated, particularly on the west side of the mountains. Barley, rye, oats, peas, and flax, flourish in all parts of the state. Corn thrives best on the intervals, but is also raised in abundance on the uplands. Large quantities of maple sugar are made in Vermont for home consumption, and some for exportation.

The exports of Vermont consist of pot and pearl ashes, beef, pork, butter, cheese, flax, live cattle, &c. The trade is chiefly with Boston, Hartford, New York, and Montreal. There are twelve paper-mills in the state. Among the most considerable manufacturing towns, are Middlebury, Bennington, Brattleborough, Burlington, and Montpelier. A company has been recently incorporated, and the stock taken up, for constructing a rail-road from Bennington in this state, to Troy in New York.—Manufactures have greatly increased in Vermont. In 1825 there were said to be upwards of 100 manufacturing companies: 800 tons of copperas were manufactured at the mines in Stafford, in 1826.

There are two colleges, one at Burlington, the other at Middlebury. The University of Vermont, at Burlington, was incorporated in 1791, and has been liberally patronised by the state. It has a library of about 1,000 volumes, and a philosophical apparatus which is tolerably complete. The funds consist principally of lands, amounting to about 40,000 acres, and yielding at present an income of about 1,200 dollars. On the 27th of May, 1824, the buildings of the college at Burlington were unfortunately destroyed by fire: but the library and part of the philosophical apparatus were saved.—Middlebury College was incorporated in 1800, and has been supported entirely by private bounty. It has a president, five professors, and two tutors, a library of more than 1,200 volumes, a valuable philosophical apparatus, and more than 100 students.

The Congregationalists have 13 associations, 203 churches, 110 pastors, 35 unsettled ministers, 10 licentiates, and 17,236 communicants; the Baptists, 105 churches, 56 pastors, 8 licentiates, and 8,478 communicants; the Methodists, 44 ministers and 8,577 communicants; the Episcopalians, 15 ministers; the Unitarians, 3 societies and 1 minister; and there are some Free-will Baptists, Christians, and Universalists.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Population	Distance.	
					M. ¹	W. ²
Addison, w.	20,469	24,949	Middlebury	3,468	56	483
Bennington, s. w. . . .	16,125	17,470	{ Bennington	3,419	119	414
Caledonia, n. e.	16,669	20,967	{ Manchester	1,525	98	434
Chittenden, w.	16,055	21,775	Danville	2,631	30	538
Essex, n. e.	3,284	3,981	Burlington	3,526	38	515
Franklin, n. w.	17,192	24,525	Guildhall	481	78	564
Grand Isle, n. w. . . .	3,527	3,696	St. Albans	2,375	64	541
Orange, e.	24,681	27,285	North Hero	638	68	545
Orleans, n.	6,976	13,980	Chelsea	1,958	23	506
Rutland, w.	29,983	31,295	Irasburgh	860	49	568
Washington, m.	14,113	21,394	Rutland	2,753	67	462
Windham, s. e.	28,659	28,758	MONTPELIER	1,193		524
Windsor, e.	38,233	40,623	Newfane ¹	1,441	103	436
			{ Windsor	3,134	59	469
			{ Woodstock	3,044	48	476
Total	225,764	280,679				

Population at different Periods.

Population.		Increase.		Slaves.
In 1790,	85,539			16
1800,	154,465	From 1790 to 1800,	68,826	0
1810,	217,895	1800 1810,	63,430	0
1820,	235,764	1810 1820,	17,869	0
1830,	280,679	1820 1830,	44,915	0

Montpelier, the capital, stands in a most picturesque valley on Onion River, near the centre of the state, at the point of intersection of several principal roads. Newbury is a pleasant town on Connecticut River, opposite Haverhill in New Hampshire, and thirty-four miles east-south-east of Montpelier. Windsor is on Connecticut River, sixty miles south of Montpelier. It is a place of considerable business, and contains the state prison. Brattleborough is on Connecticut River, forty-three miles below Windsor, and near the southern boundary of the state. Bennington is near the south-west corner of the state: it is one of the oldest towns in Vermont, and is famous for the battle of August, 1777. Rutland is on Otter Creek, fifty-seven miles north of Bennington, and forty-five west of Windsor. Middlebury, the seat of Middlebury College, is pleasantly situated on Otter Creek, at the falls, twenty

¹ From Montpelier.

² From Washington.

³ The name of the village in which the county buildings are situated is Fayetteville.

miles from the mouth of the river. In the vicinity of the falls are numerous mills and manufacturing establishments. An extensive quarry of fine marble was discovered, in 1804, on the bank of the creek, near the centre of the village. It is now wrought into tombstones, mantel-pieces, sideboards, &c., and transported to various parts of the country to the amount of seven or eight thousand dollars annually. Vergennes is on Otter Creek, at the Lower Falls, six miles from the mouth of the river, and thirteen below Middlebury. It is at the head of navigation, and has several mills and manufactories, and considerable trade. Burlington, the seat of Vermont University, stands on a most beautiful harbour on Lake Champlain, near the mouth of Onion River. It is on elevated ground, commanding a noble view of the lake and the adjacent country. It carries on considerable trade on Lake Champlain. Almost all the vessels which navigate the lake are owned here. St. Albans is a flourishing town on Lake Champlain, near the north-west corner of the state.

MASSACHUSETTS.

This state is bounded by New Hampshire and Vermont on the north; by the Atlantic from the north-east to the south-east; by Connecticut and Rhode Island on the south; and by New York on the west.^m From Plymouth harbour to the south-west angle is about 145 miles; area, 7,335 miles; mean width, about fifty miles.

Massachusetts presents three distinct zones. The first towards the Atlantic Ocean is a marine alluvion, but little elevated above the ocean. This eastern plain is quickly and abruptly followed by a fine hilly tract, which crosses the state from north to south, and from which the rivers are poured in every direction. The second or middle zone includes part of the beautiful valley of Connecticut, and is followed by the mountainous but highly fertile county of Berkshire, which comprises the whole western part of the state. The eastern or sandy border is the least fertile, but also the least extensive of the three sections. Within the sandy tract the country rises by so abrupt an acclivity, as to prevent the tides penetrating in any place more than a few miles. It has been already noticed that the peninsula of Cape Cod, which forms the eastern part of this state, is the great dividing limit of the Atlantic tides, and that a very rapid increase of depth is found within the bay of Massachusetts. Taken at one view, the surface of this state swells from the Atlantic to the hills, then sinks into the richly decorated valley of Connecticut, and again rises into the mountain region of Berkshire.

The climate of Massachusetts, as affected by the elevation of the ground, varies from east to west. The cultivated parts of the county of Berkshire rising to a height

^m Longitude, 69° 50' to 73° 10'; latitude, 41° 23' to 43° 52'.

of from 500 to 1,000 feet, there is a marked difference between the seasons here, and those on the Hudson and Connecticut rivers in equal latitudes. "I have seen," says Mr. Darby, "the spring opening at Albany whilst snow covered the vales of Berkshire."

The soil is exceedingly various, comprising every description, from the most fertile to the most unproductive. In the south-eastern part it is mostly light and sandy, interspersed, however, with numerous fertile tracts. In the middle and northern part, towards the sea-coast, it is of a much better quality, though not generally distinguished for natural fertility; but, by excellent cultivation, a great portion of it is rendered highly productive. The middle and western parts have generally a strong, rich soil, excellent for grazing, and suited to most of the purposes of agriculture. The state is almost universally well watered, and the streams of every description are remarkably clear and beautiful. The farms generally consist of from 100 to 300 acres, and are for the most part well cultivated. In no part of the United States have greater advances been made in agricultural improvement, than in Massachusetts. The country is intersected in every direction by roads, which are kept in a good state of repair. The principal productions are, Indian corn, rye, wheat, oats, barley, peas, beans, buck wheat, potatoes, hops, flax, and hemp. Beef, pork, butter, and cheese, are abundant in most parts of the state, and of excellent quality; the county of Berkshire, in particular, is distinguished for its extensive dairies. The state abounds with orchards; and great quantities of cider are annually made, which is the common beverage of the inhabitants. The principal cultivated fruits are apples, peaches, pears, quinces, plums, cherries, and currants. Gardening is an object of attention throughout the state; and all the vegetables suited to the climate, together with a variety of domestic fruits, are extensively cultivated.

The principal mines are those of iron, which is found in various parts; and there are numerous establishments for manufacturing it. The counties of Plymouth and Bristol afford great quantities of this mineral, and there are several rich iron mines in Berkshire. Lead is found at South Hadley, and at some other places. Ochre, and other fossil productions, have been found in various places. Quarries of good marble are wrought in Lanesborough, Stockbridge, Pittsfield, Sheffield, and several other places in Berkshire. There are quarries of slate at Lancaster, Harvard, and Bernardston; and of soapstone at Middlefield. Limestone is found in great abundance in the county of Berkshire, and freestone in all parts of the state. Beautiful granite for building is obtained from Chelmsford and Tyngsborough.

Massachusetts has a greater number of inhabitants engaged in commerce than any other state in the Union. The greatest part of the fisheries in the United States belong to this state. The principal articles of export are fish, beef, pork, lumber, ardent spirits, flax seed, whale oil, spermaceti, and various manufactures. This state also holds a high rank in point of manufactures. The most considerable are

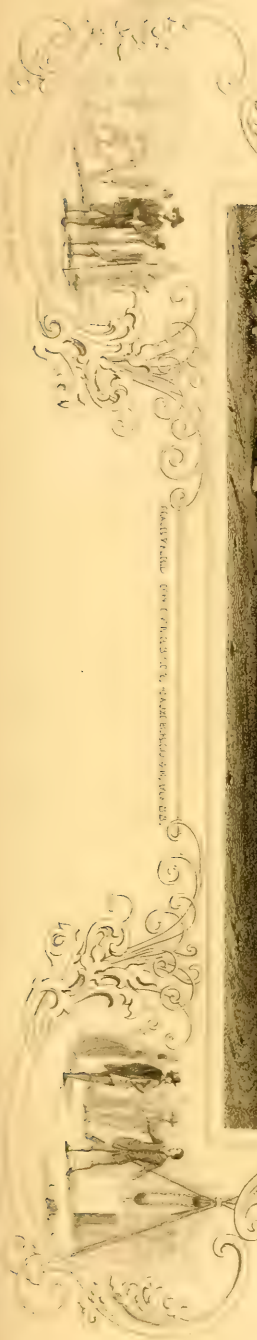
those of cotton cloths, boots and shoes, ardent spirits, leather, cordage, wrought and cast iron, nails, woollens, straw bonnets, hats, cabinet work, paper, oil, and muskets. There is an extensive national establishment for the manufacture of arms at Springfield.

Not having natural facilities of intercourse with the interior country, the inhabitants of Massachusetts Bay have long since turned their attention to the formation of artificial channels of communication; one of which, the Middlesex Canal, has been effected, though very imperfectly constructed. The canal, twenty-seven miles long, leaves the Merrimac River above its lower falls, and terminates at Charleston, opposite Boston. The water in the canal is thirty feet wide at the surface, twenty at the bottom, and three feet deep. Concord River crosses the line of the canal on the summit-level, twenty-two miles from Charleston, and five from the junction of the canal with the Merrimac; and thus an ample supply of water is afforded, or lockage in both directions. Round the falls in Connecticut River, at South Hadley, there is a canal cut through the solid rock, more than forty feet deep, and 300 feet long. There are other falls on the Connecticut, above and below South Hadley, which have been overcome by canals, dams, and other improvements, so that the river is now navigable for boats through the whole of its course in this state, and as high as Bath in New Hampshire. A canal from Buzzard's Bay to Barnstable Bay, through the isthmus of Cape Cod, has long been in contemplation, and in 1818 a company was incorporated to carry it into execution. It is intended that the canal shall be of a suitable depth for vessels drawing ten feet of water. Several companies have been recently incorporated by the legislature of this state, for the purpose of constructing rail-roads. Most of these are projected from Boston as a centre, and are to extend to Worcester, to the river Hudson, to Connecticut River, to Providence, by Pawtucket, to Taunton, to Lowell, and to Lake Ontario, New York; and one from West Stockbridge to the boundary line of the state of New York.

Harvard University, at Cambridge, three miles west by north of Boston, is the most ancient and the most wealthy literary institution in the United States. It was founded in 1638, less than twenty years after the first settlement of New England. Its officers, in 1825, were a president, sixteen professors, a lecturer on chemistry, mineralogy, and geology, a librarian and an assistant, six tutors, an instructor in French and Spanish, and two proctors. The library is one of the largest in America, containing 26,000 volumes. The philosophical and chemical apparatus are complete. There is a large and valuable cabinet of minerals belonging to the university, an excellent anatomical museum, and a botanic garden, containing eight acres of land, and furnished with an extensive collection of trees, shrubs, and plants, both native and foreign. A law school, a medical school, and a theological seminary, form part of the university. The whole number of students, in 1825, was 407, of whom thirty-five were engaged in the study of theology; 127 in that of



FRANKFURT, GERMANY, THE GREAT ST. MARTIN'S CHURCH.



medicine; ten in that of law; and 234 were undergraduates. The whole number educated here, from the establishment of the institution to the year 1818, was 4,442, a greater number than at any other college in the country. Williams College, in Williams-town, in the north-west corner of the state, was incorporated in 1793. It has a president, three professors, three tutors, a library of about 1,500 volumes, a valuable philosophical and chemical apparatus, and about ninety students. The Theological Seminary at Andover, twenty miles north of Boston, was founded in 1808, and has been very richly endowed, entirely by private bounty. Within the first ten years after its establishment, it received to the value of 300,000 dollars, in donations from seven individuals. It has four professors, and more than 100 students. The library contains about 5,000 volumes. Phillips's Academy, also in Andover, is the best-endowed and most flourishing academy in the state. This academy and the theological seminary, are under the same board of trustees. There are numerous other academies in the state, and common schools are universally established. In no part of the Union are literary institutions more liberally patronized by individuals, than in the eastern section of this state. At Amherst, in Hampshire county, is a college, which was incorporated in 1825. It has now a president, six professors, one tutor, and 152 students.

The Congregationalists have 491 churches and 423 ordained ministers, 118 of whom are Unitarians; the Baptists, 129 churches, 110 ministers, and 12,580 communicants; the Methodists, 71 preachers, and 8,200 members; the Universalists, 46 societies; the Episcopalians, 31 ministers; the New Jerusalem Church, 8 societies; the Presbyterians, 9 ministers; the Roman Catholics, 4 churches; and the Shakers, 4 societies.

Population of the Counties and County Towns.

Counties.	Males.	Females.	Coloured.	Total Population.	County Towns.	Population.	Distance. B. ^a | W. ^o
Suffolk, E.	28,586	31,693	1,883	62,162	Boston	61,392	432
Essex, N. E.	39,431	42,929	527	82,887	{ Salem	13,886	14 446
					{ Newburyport . . .	6,388	37 466
					{ Ipswich	2,951	27 452
Middlesex, M. . . .	38,107	39,348	513	77,968	{ Cambridge	6,071	3 431
Plymouth, E.	20,905	21,678	410	42,993	{ Concord	2,017	17 427
Norfolk, E.	20,436	21,296	169	41,901	{ Plymouth	4,751	36 439
					{ Dedham	3,037	10 422
Bristol, S.	23,366	25,178	930	49,474	{ New Bedford . . .	7,592	52 458
Barnstable, S. E. . .	13,997	14,363	165	28,525	{ Taunton	6,045	32 431
Nantucket, S. E. . .	3,339	3,584	279	7,202	Barnstable	3,975	68 466
Dukes, S. E.	1,702	1,768	48	3,518	Nantucket	7,202	100 531
Worcester, M.	41,545	42,449	371	84,365	Edgartown	1,509	97 495
Hampshire, W. M. . .	14,999	14,995	225	30,210	Worcester	4,172	39 394
Hampden, S. W. . . .	15,288	16,003	349	31,640	Northampton . . .	3,613	91 376
Franklin, N. W. . . .	14,447	14,765	132	29,344	Springfield	6,784	87 363
Berkshire, W.	18,310	18,510	1,005	37,825	Greenfield	1,540	95 396
					Lenox	1,355	133 363
Total	294,449	308,559	7,006	610,014			

^a From Boston

^o From Washington.

Population of Massachusetts, Boston, and Salem, at different Periods.

Massachusetts.		Boston.		Salem.	
In 1701,	70,000	In 1700,	7,000	In 1754,	3,462
1742,	164,000	1722,	10,567	1765,	4,427
1763,	241,024	1742,	16,382	1785,	6,923
1765,	227,926	1752,	17,574	1790,	7,921
1776,	348,094	1765,	15,520	1800,	9,457
1784,	357,510	1790,	18,038	1810,	12,613
1790,	378,787	1800,	24,937	1820,	12,731
1800,	422,845	1810,	33,250	1830,	13,886
1810,	472,040	1820,	43,298		
1820,	523,287	1825,	58,261		
1830,	610,014	1830,	61,392		

There are now no slaves in this state; their number was never considerable. For some years before the declaration of independence public opinion was strongly against slavery. The first article in the Declaration of Rights contained in the general constitution, is, "All men are born free and equal;" and this was decided by the supreme court of Massachusetts, in 1783, to be an abolition of slavery.

Boston, the capital of the state, and the largest town in New England, is pleasantly situated at the bottom of Massachusetts Bay, on a peninsula of an irregular figure, two miles long, and in the widest part about one broad. The harbour is excellent. It has a sufficient depth of water for vessels of the largest size at all times of the tide, and is accessible at all seasons of the year. It is safe from every wind, and is so capacious that it will allow 500 vessels to ride at anchor; yet the mouth is so narrow as scarcely to admit two ships abreast. The entrance is defended by two forts. Boston is very extensively engaged in commerce. The amount of shipping owned here in 1815, was 143,420 tons; a greater amount than belonged to any other port in the United States, except New York. The country in the immediate vicinity is fertile and populous, and connected with the capital by fine roads, while the Middlesex Canal opens a communication with the interior of New Hampshire. There are, probably, few cities in the world where there is so much wealth, in proportion to the population, as in this town; and the inhabitants have long been celebrated for the liberality with which they support religious, literary, and humane institutions. The appearance of Boston is much admired by strangers, particularly when approaching from the sea. Its streets do not exhibit so great a regularity as those of some other cities; but its beautiful situation and elegant public and private buildings, together with its richly ornamented promenades, render it altogether a delightful and attractive place. In the south-western part of the city, and in front of the state-house, is the celebrated Common, presenting an area of more than seventy-five acres, containing the Mall, a very beautiful public walk, adorned with rows of trees. This is a delightful promenade during the summer months, and is a place of general resort. In the centre of the Common is an eminence still exhibiting marks of the fortification erected by the British during the revolution. North of it is the Crescent Pond, a beautiful sheet of water, surrounded with

trees. Near the Mall, in Mason-street, is the Medical College, an edifice belonging to Harvard University.

The Boston Athenæum is situated near the head of Pearl-street, and is a very spacious building, containing appropriate rooms. The number of volumes belonging to the institution is about 25,000. It also contains nearly 14,000 medals and coins, some of which are very rare and interesting. The rooms are open from eight A. M. to nine P. M., and can be visited by strangers introduced by subscribers. The Gallery of Fine Arts is a handsome structure in the rear of the Athenæum, and is appropriated for scientific lectures, the Academy of Arts and Sciences, the Massachusetts Medical Library, a philosophical apparatus of the Mechanics Institution, and for paintings, which are exhibited in the upper story, and are generally very elegant. Massachusetts Historical Society have an extensive library in a spacious apartment over the arch in Franklin street: the Boston Library Society have a collection of 6,000 volumes, and the Columbian Library contains about 4,500 volumes. There are numerous other libraries of less note. The New England Museum, in Court-street, is probably the best in the United States, and should be visited by every stranger. Among the benevolent institutions, are the House of Industry at South Boston, 220 feet long, and forty-three wide; the Massachusetts General Hospital, founded in 1818, which has been richly endowed, both by the state and by private individuals; and a Hospital for the Insane, the buildings of which are at Charleston.

The first houses built in the city were plain, and the streets narrow and crooked; but a very few years have wrought a striking and almost incredible change. New streets have been laid out, old ones straightened and improved, and neat brick and granite dwellings have been substituted for ill-shapen and decaying houses of wood. The private buildings, and many of the stores recently erected, are more splendid than in any other city in the United States. In 1817, there was erected on each side of Market-street, a line of brick stores more than 400 feet in length, and four stories high; and on Central Wharf another immense pile of buildings was completed the same year, 1,240 feet long, containing fifty-four stores four stories high, and having a spacious hall in the centre, over which is erected an elegant observatory. Other costly works have been constructed, which do honour to the town; but the project which exceeded them all in boldness of design, in promise of public benefit, and in energy of execution, is that which within three or four years has been accomplished in the vicinity of Fanueil Hall Market. Extensive rows of granite stores, four stories high, constructed after the best model, are on either hand; and between these two ranges of stores, stands the new Market-house, at the distance of 102 feet from those on the south side, and sixty-five feet from those on the north. The centre part of the building is seventy-four by fifty-five feet, having a hall in the second story. The wings are each 231 feet long by fifty wide, and two stories high. They have

each a portico of four columns, twenty-three feet high; the shafts are of granite, and in a single piece. The construction of the whole is of hammered granite of an uniform colour.

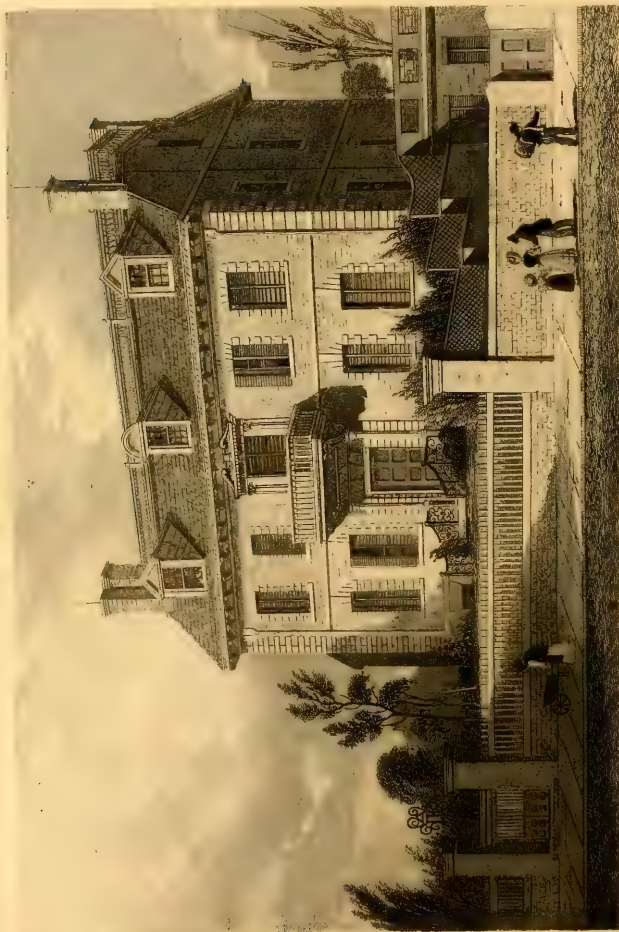
Among the public buildings are the State-house, which is built on elevated ground, commanding a fine view of the surrounding country, and containing an elegant statue of Washington, which cost 15,000 dollars; the new county Court-house, built at an expense of 92,000 dollars; the municipal Court-house; a new Gaol; Fanueil Hall, where all public meetings of the citizens are held; two theatres, one of which (the Tremont) was erected in 1827, at a cost of about 120,000 dollars, being 135 feet in length, and about eighty in breadth,—the front of Hallowell and Quincy granite, in imitation of the Ionic order, with four pilasters supporting an entablature and pediment, and elevated on a basement seventeen feet high; the Custom House, Merchants' Hall, Boylston Market and Boylston Hall; United States Branch Bank; Concert, Julian, Corinthian, Pantheon, Washington, and Chauncy Halls.

There are six bridges connecting Boston with the adjacent towns. Charles River Bridge, which connects it with Charleston on the north, 1,503 feet long; West Boston Bridge, connecting it with Cambridge Port on the west, 7,810 feet long; Craigie's or Canal Bridge, between these two, connecting it with Lechmere Point, 2,796 feet long; and two bridges uniting it to South Boston. The other avenue is a mill-dam, nearly two miles long and fifty feet wide, across the bay on the south-west side of the city; which not only furnishes a bridge, but puts in operation extensive tide-mills and other water-works.

There are nearly fifty churches in Boston, many of which have been built at a great expense, and are very elegant. On one of the quoins at the south-west corner of Brattle-street church, of which Governor Hancock was a benefactor, his name had been inscribed; but it was effaced by the British soldiery during the revolution, and the stone has been permitted to remain as they left it. A shot from the Americans on the night previous to the evacuation of Boston by the British, still remains in the tower which it originally struck. In St. Paul's Church, in Common-street, there is an elegant monument to the memory of General Warren, who was slain on Bunker's Hill, and whose remains are entombed in the cemetery beneath this church.

In the Chapel burial-ground, north of the stone chapel, there are several ancient monuments; and among them that of Governor Winthrop, who died in 1649. In the Cop's-hill ground similar monuments are found. In the Granary ground, the cenotaph erected to the memory of Dr. Franklin stands over his tomb, in which the remains of both his parents also repose.

The number of stage-coaches which regularly leave Boston, is much larger than at any other place in the Union. There are between eighty and ninety distinct lines



HANCOCK HOUSE, BOSTON.

of stages; which, according to their established arrangements, not including extras, make about 125 departures, and as many arrivals daily.

The country around Boston is much admired by every traveller of taste. The view from the dome of the State-house surpasses any thing of the kind in England, and is said not to be excelled by that from the castle-hill of Edinburgh, or that of the Bay of Naples from the castle of St. Elmo. Here may be seen at one view—the shipping; the harbour, variegated with islands and alive with business; Charles River and its beautiful country, ornamented with elegant private mansions; and more than twenty flourishing towns. The hills are finely cultivated, and rounded by the hand of Nature with singular felicity.

Charlestown is one mile north of Boston, and connected with it by a bridge over Charles River. Here are the state-prison, a hospital for the insane, and a United States' navy-yard. Lynn is on the coast, nine miles north-east of Boston. It is famous for the manufacture of ladies' shoes; no less than a million pair were made here in 1811. Marblehead is on a peninsula, sixteen miles north-east of Boston. It is more extensively engaged in the fisheries than any other town in the United States. In 1818, there were eighty vessels employed from this port in the cod fishery, manned by 760 men. The whole amount of shipping, in 1815, was 15,555 tons. Salem is on a peninsula, four miles north-west of Marblehead. It is the second town in New England for commerce, wealth, and population. The harbour has a good anchorage; but is so shallow, that vessels drawing more than twelve or fourteen feet of water must load and unload at a distance from the wharfs. The East India trade is carried on from this port with great spirit: in 1818, there were employed in it, fifty-three vessels, carrying 14,272 tons. The whole amount of shipping belonging to this port in 1815, was 34,455 tons. Beverly lies about two miles north of Salem, and is largely concerned in the fisheries. Gloucester is on the peninsula of Cape Ann, sixteen miles north-east of Salem. It is one of the most considerable fishing-towns in the commonwealth. Newburyport, the third commercial town in the state, is on the Merrimack, three miles from its mouth, and thirty-three north-north-east of Boston. The harbour is deep, safe, and spacious, but difficult to enter. The amount of shipping, in 1815, was 25,691 tons. Plymouth is on the coast, thirty-six miles south-south-east of Boston. It is remarkable as the place where the first settlers of New England landed, on the 22d of December, 1620. The harbour is spacious, but shallow. The amount of shipping, in 1815, was 18,875 tons. New Bedford is fifty-two miles south of Boston, on the estuary of a small river which flows into Buzzard's Bay. It has a safe and commodious harbour, and is extensively engaged in the whale fishery. The amount of shipping, in 1818, was 23,712 tons. The principal towns in the interior, are, Worcester, forty miles west of Boston; and Northampton and Springfield, on Connecticut River. There is an armoury belonging

to the United States at Springfield, which employs 250 men, who complete on an average forty-five muskets daily: there are twenty-eight forges and ten trip-hammers connected with the establishment. In Berkshire county, the chief towns are Stockbridge and Lenox, on the Housatonic, and Pittsfield, twelve miles north of Stockbridge.

RHODE ISLAND

Is bounded by Massachusetts on the west and north-east, by the Atlantic on the south-east and south, and by Connecticut on the west.^p Exclusive of water, the area is about 1,200 square miles, or 768,000 acres; length, fifty miles; and mean width, twenty-four miles.

Compared with its limited extent, Rhode Island is a very diversified state. The north-west part is hilly and broken, but becomes gradually level towards the Atlantic Ocean. The state is composed of three natural sections: four-fifths of it constitute a generally hilly parallelogram, lying west from Narragansett Bay; the second section is composed of the truly delightful islands of Narragansett Bay, Rhode Island, Prudence, and Conanicut, with a few still smaller; the third section is a small, irregular slip, lying along Massachusetts, and east from Narragansett. Narragansett Bay is at once the ornament and nursing-mother of Rhode Island. At its mouth opens the noble harbour of Newport, which, becoming narrower and shallower for about twenty-five miles inland, terminates, amidst highly attractive scenery, in the convenient, though shallow, harbour of Providence.

The climate of this state is as healthy as that of any part of America, and it is more temperate than that of any of the other New England states, particularly on the islands, where the breezes from the sea have the effect not only of mitigating the heat in summer, but of moderating the cold in winter. The summers are delightful, especially on the island of Rhode Island.

The soil is generally better adapted to grazing than tillage. A large proportion of the western and north-western part of the state has a thin and lean soil, but the islands and the country bordering on Narragansett Bay are of great fertility, and are celebrated for their fine cattle, their numerous flocks of sheep, and the abundance and excellence of their butter and cheese. Cider is made for exportation. Corn, rye, barley, oats, and, in some places, wheat, are produced in sufficient quantities for home consumption; and the various kinds of grasses, fruits, culinary roots and plants, in great abundance and perfection. The rivers and bays swarm with a variety of excellent fish. Iron ore is found in large quantities in several parts, and some copper; there is, also, an abundance of limestone, particularly in the county of Providence.

^p Longitude, 71° 6' to 71° 38'; latitude 41° 22' to 42° 3'.



THE GREAT LANTERN OF THE GREAT BRITAIN

In no state in the Union is so large a proportion of the population and capital employed in manufactures as in Rhode Island. The principal article is cotton goods, which are made in large quantities in Providence and its vicinity. There are now more than 100 cotton-mills in the state, many of them extensive establishments. The other manufactures are woollen goods, iron, ardent spirits, &c. The value of the manufactures, in 1810, was 4,106,074 dollars. The exports, in 1825, amounted to 678,467 dollars, of which 158,873 dollars were foreign produce. The amount of shipping, in 1823, was 39,000 tons. There are no fewer than forty-three banks in this state, of which the amount of stock paid in is 4,391,954 dollars.

Brown University, in Providence, derives its name from the liberal donation of Nicholas Brown, Esq., and is a flourishing and respectable literary institution. It was originally established at Warren, in 1764, and was removed to Providence in 1770. It has a president, eight professors, and two tutors, and contains about 120 students. The library contains more than 5,700 volumes, and the philosophical apparatus is extensive. There are two college edifices of brick: University Hall, 150 feet by forty-six, and four stories high, containing forty-eight rooms for students, and eight large rooms for public uses; and Hope College, (the munificent gift of N. Brown, Esq.,) nearly of the same dimensions, with the same number of rooms for students. Its site is elevated, and it commands a fine prospect. The president and a majority of the trustees are required to be of the Baptist denomination. Common schools are not supported by law in Rhode Island, as in the other New England states, except in Providence and Newport; academies, however, are established in all the principal towns, and private schools are maintained during the winter months in every town, and nearly in every town throughout the year.

The Baptists in this state have 16 churches, 12 ministers, and 2,600 communicants; the Methodists, 10 preachers, and 1,100 members; the Congregationalists, 10 churches, 10 ministers, and 1,000 communicants; the Unitarians, 2 societies, and 2 ministers; the Sabbatarians, about 1,000 communicants; the Six-principle Baptists, about 8 churches, and about 800 communicants; the Friends are numerous; and there are some Universalists, and 1 Roman Catholic church.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Population, 1830.	Distance, P. ^a | W. ^r	
Providence, N.	35,786	47,014	PROVIDENCE	16,832		394
Newport, S. E.	15,771	16,534	Newport.	8,010	30	403
Washington, S. W. . . .	15,687	15,414	South Kingston	3,663	31	389
Kent, M.	10,228	12,784	East Greenwich	1,591	15	406
Bristol, E.	5,637	5,466	Bristol	3,034	15	409
Total	83,059	97,212				

^a From Providence.

^r From Washington.

Population at different Periods.

Population.		Population.		Increase.		Slaves.
In 1701,	10,000	In 1790,	68,825			948
1730,	17,935	1800,	69,122	From 1790 to 1800,	297	380
1748,	34,128	1810,	76,931	1800	1810,	7,809
1755,	46,636	1820,	83,059	1810	1820,	6,128
1774,	59,678	1830,	97,212	1820	1830,	14,153
1783,	51,809					14

Providence, the largest town in the state, and the third in New England in point of population, stands on Providence River, just above the mouth of the Seekhok, thirty-five miles from the ocean. The town is built on both sides of the river, and the two parts are connected by a handsome bridge. Providence is a wealthy and flourishing town. The principal source of its prosperity is the cotton manufacture, which was introduced about fifteen years ago, and has increased with astonishing rapidity. The commerce of the town has grown with its manufactures: the amount of shipping, in 1826, was 21,000 tons, of which about 4,000 are employed in the East India trade, and 10,000 in the coasting trade with the southern states. About ten vessels are constantly employed in the exportation of cotton goods. Packets ply regularly between Providence and Newport, Bristol, &c., and the southern ports. The population is estimated at about 16,000 persons. Pawtucket village, finely situated on Pawtucket River, at the falls, four miles north-east of Providence, is one of the most flourishing manufacturing villages in the United States. Bristol is on the east side of Narragansett Bay, fifteen miles south-south-east of Providence. It has a safe and commodious harbour, and is a place of considerable trade. Warren is a pleasant town, adjoining Bristol, on the north. Newport is near the south-west extremity of the island of Rhode Island, thirty miles south of Providence. Its harbour is one of the finest in the world, being safe and easy of access, sufficiently capacious to contain whole fleets, and deep enough for vessels of the largest burden. It is defended by Fort Wolcott, erected on Goat Island, and two other forts, called Fort Adams and Fort Green. The site of the town is a beautiful declivity, which rises gradually from the harbour, presenting a fine view on the approach from the water. The beauty of its situation and the salubrity of its climate, have made it a place of fashionable resort from the southern and middle states, during the summer months. Newport was formerly more flourishing than it is at present: previously to the American revolution, it was the fourth commercial town in the British colonies, and contained, at one period, more than 9,000 inhabitants. During the revolutionary contest, it was for a long time occupied by the English, and suffered severely. At present it maintains some trade with the East Indies, Europe, and Cuba; but the most important branch of its commerce is the coasting trade with the middle and southern states. In 1819, the amount of shipping owned here was 10,951 tons. The fisheries are very valuable; there is, probably, no fish-market in the world which affords a greater variety.



THE GREAT HALL, WESTMINSTER



CONNECTICUT.

The boundaries of this state are,—on the north, Massachusetts; on the east, Rhode Island; on the south, Long Island Sound; and on the west, New York.* The length from east to west, is eighty-five miles; mean width, sixty miles; and area, 5,050 square miles.

Though generally hilly, and in part mountainous, no part of Connecticut rises to a great elevation above the level of the ocean. The greatest elevation is a range of small mountains on the west side of Connecticut River, being a continuation of the Green Mountains. The hills are generally of moderate size, and occur in quick succession, presenting to the traveller an ever-varying prospect.

Though exposed to the extremes of heat and cold, and to sudden changes of temperature, the country is very healthful. The north-west winds which prevail during the winter are keen; but the serenity of the sky during the same season makes amends, in some degree, for the severity of the weather. In the maritime towns the weather is particularly variable, changing as the wind blows from sea or land: in the inland country it is less so.

The soil is generally fertile, though intermixed with portions that are comparatively thin and barren; and the whole is well-watered. It is generally in a state of good cultivation, resembling, in many parts, a well-cultivated garden. The principal productions are Indian corn, rye, wheat in many parts, oats, barley, buck-wheat, flax in large quantities, some hemp, potatoes, pumpkins, turnips, peas, beans, &c. Orchards are very numerous, and cider is made for exportation. The state is, however, on the whole, better adapted to grazing than tillage; and its fine meadows and pastures enable the farmers to feed great numbers of cattle, horses, and sheep. The quantity of butter and cheese made annually is great, and of well-known excellence. Beef and pork of superior quality are also abundant. The state is for the most part laid out in small farms, of from fifty to 300 and 400 acres. It is intersected by numerous roads, which are generally kept in good repair. Its exports consist of beef, pork, cattle, horses, mules, butter, cheese, maize, rye, flax-seed, fish, candles, and soap. Almost all the produce of the western part of the state is carried to New York.

The manufacturing industry of Connecticut is greater in proportion to the population, than that of any other state in the Union except Rhode Island. The manufactures consist of cotton and woollen goods, tin ware, iron, gin, glass, paper, snuff, powder, leather, shoes, clocks, buttons, fire-arms, carriages, &c. Mines of different kinds have been opened in this state; but they have not been wrought to any considerable extent, with the exception of those of iron ore, which abounds in Salisbury and Kent, of an excellent quality, and is also found in other places. There is a lead

* Longitude, 71° 20' to 75° 15'; latitude, 41° to 42° 2'

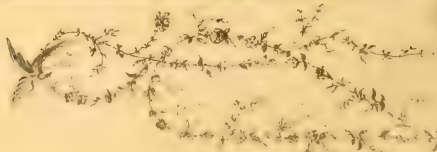
mine on the Connecticut, two miles from Middletown, which was wrought during the revolutionary war. Copper mines have been discovered and opened in several places, but, having proved unprofitable, they have been neglected. Marble is found in Washington, Milford, Brookfield, and New Milford; porcelain clay in New Milford and Cornwall; black lead in New Milford and Marlborough; cobalt in Chatham; and excellent freestone in Chatham, Haddam, and East Hartford. There are several mineral springs, but none of much note, except those of Stafford and Suffield; the one at Stafford is the most celebrated in New England.

Yale College, in Newhaven, is one of the oldest and most respectable colleges in the United States. It was founded in 1701: its officers, in 1825, were a president, six professors, and eight tutors, besides four medical professors. The college library contains about 7,000 volumes; and the students have libraries amounting to 2,000 more. The philosophical and chemical apparatus are complete, and the mineralogical cabinet is probably superior to any other in the United States. The medical institution, connected with the college, has a valuable anatomical museum and medical library. The whole number of students, in 1825, was 468; of whom, seventy-five were medical students, twenty-three theological, and sixteen law, and 354 were under-graduates. The American Asylum for the Education of the Deaf and Dumb, established at Hartford in 1817, was the first institution of the kind in America. The number of pupils in 1819, was fifty. The congress of the United States has made a generous grant to the asylum of 23,000 acres of land; and the legislatures of several of the states have made appropriations for the support of pupils. A Foreign Mission School was established at Cornwall, in 1817, by the American board of commissioners for foreign missions, for the purpose of educating heathen youth from various parts of the world. After receiving their education they are sent home to instruct their countrymen. In 1820, there were twenty-nine pupils, of whom nineteen were American Indians, and six had come from the islands of the Pacific Ocean. Several natives of the Sandwich Islands, who were educated at this school, have already returned to their native country well qualified for usefulness. A Law School was established at Litchfield in 1784, which has had great reputation. It has usually about thirty students, and the whole number that have been educated here is more than 600. Bacon Academy, in Colchester, was founded in 1801; it is well endowed and very flourishing. The Episcopal Academy, in Cheshire, is a flourishing institution. Washington College, at Hartford, was incorporated in 1823. There are, also, academies at Plainfield, Litchfield, and almost all the principal towns in the state. Common schools are universally established in Connecticut. The state has a large school fund, which amounted, in 1824, to 1,756,233 dollars. The yearly income, together with 12,000 dollars from the public taxes, is annually devoted to the maintenance of common schoolmasters, in every town in the state. The whole amount





NEW HAVEN CONNECTICUT. VIEW LOOKING SOUTH WEST. ABOVE THE CHURCH, IS YALE COLLEGE.



paid to the towns from this fund, in 1825, was 72,229 dollars, and the amount of the state tax, in 1817, was only 48,362 dollars; the income of the fund exceeding the amount of the tax by 22,551 dollars. This, probably, is the only government in the world which gives to the people more than they pay to the treasury.

The Congregationalists have 236 ministers and 36 licentiates; the Baptists, 99 churches, 78 ministers, 14 licentiates, and 9,732 communicants; the Episcopalians, 59 ministers; the Methodists, 40 ministers and 7,000 communicants; there are, also, several societies of Friends, several of Universalists, 2 of Unitarians, 1 of Catholics, 1 of Shakers, some Free-will Baptists, and a few Sandemanians.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Population.	Distance.	
					H. ¹	W. ²
Fairfield, s. w.	42,739	46,950	{ Fairfield	4,226	55	289
Hartford, n. m.	47,264	51,141	{ Danbury	4,311	61	290
Litchfield, n. w.	41,267	42,855	{ HARTFORD	7,076		335
Middlesex, s. m.	22,405	24,845	{ Litchfield	4,456	31	324
New Haven, s. m.	39,616	43,848	{ Middletown	6,892	14	325
New London, s. e.	35,943	42,295	{ Haddam	3,025	25	335
Tolland, n. m.	14,330	18,700	{ NEW HAVEN	10,180	34	301
Windham, n. e.	25,331	27,077	{ New London	4,356	42	354
			{ Norwich	3,144	38	362
			{ Tolland	1,698	17	352
			{ Brooklyn	1,413	41	372
Total	275,248	297,711				

Population at different Periods.

Population.		Population.		Increase.	Slaves.		
In 1701,	30,000	In 1790,	237,946				
1749,	100,000	1800,	251,002	From 1790 to 1800,	13,056	2,764	
1756,	130,611	1810,	261,942	1800	1810,	10,940	954
1774,	197,856	1820,	275,248	1810	1820,	13,306	310
1782,	209,150	1830,	297,711	1820	1830,	22,463	97

There are five incorporated cities in Connecticut, viz. Hartford, Newhaven, Middletown, New London, and Norwich. Hartford and Newhaven are the capitals of the state, the sessions of the legislature being held at them alternately. Hartford lies on the west bank of the Connecticut River, fifty miles from its mouth. It is advantageously situated for trade, being at the head of the sloop navigation, and having an extensive, rich, and industrious back country. Newhaven lies round the head of a bay, which stretches inwards about four miles from Long Island Sound. The city is regularly laid out on a large plain, which is bounded on the north-east and north-west by mountains. The harbour is well defended from winds, but shallow, and is gradually filling up with mud,—which difficulty has been remedied in part, by the construction of a wharf, about a mile in length, extending into the harbour. Middletown

¹ From Hartford.

² From Washington.

is on the west bank of Connecticut River, thirty-one miles from its mouth, fifteen miles south of Hartford, and twenty-six north-east of Newhaven. It is a pleasant and flourishing town, and has considerable commerce. The amount of shipping, in 1815, was 19,499 tons, a greater amount than belonged to any other port in the state. The river is navigable to this place for vessels drawing ten feet of water. New London is near the south-east corner of the state, on the west bank of the Thames, three miles from its entrance into the sound. It is one of the most considerable commercial towns in the state. The harbour is large, safe, and commodious, and has five fathoms water. It is defended by two forts. Norwich is on the Thames, fourteen miles north of New London, and forty south-east of Hartford. It is favourably situated for trade, being at the head of navigation on the river, and having a productive back country. There are falls within the town, which afford seats for various mills and manufacturing establishments. Litchfield is thirty miles west of Hartford, and thirty-six north north-west of Newhaven. Its situation is elevated and healthy. Wethersfield is on the west bank of Connecticut River, between Hartford and Middletown. It is famous for raising great quantities of onions. Saybrook, one of the oldest towns in the country, stands on the west bank of Connecticut River, at its mouth. Stafford, famous for its mineral spring, is twenty-seven miles north-east of Hartford. Cornwall, the seat of the Foreign Mission School, is ten miles north-west of Litchfield. Fairfield, the chief town in Fairfield county, is twenty-two miles west south-west of Newhaven. Bridgeport, an incorporated borough, and a thriving commercial place, is four miles north-east of Fairfield.





A LUSTY VIEW OF THE FALLS OF NIAGARA.



Wm. H. Miller



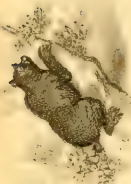
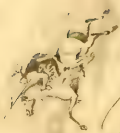
WILLIAM H. MILLER



Wm. H. Miller







CHAPTER II.

NEW YORK—NEW JERSEY—PENNSYLVANIA.

NEW YORK.

THIS extensive, populous, and flourishing state extends from latitude $40^{\circ} 30'$ to 45° ; and longitude 73° to $79^{\circ} 55'$. Length from Staten Island, the south-west point, 315 miles, and from the south-west angle of Massachusetts along the line of north latitude 42° , 320 miles. The area is within a fraction of 46,500 square miles, and the mean breadth nearly 110 miles. It is bounded on the north by Lower Canada, on the east by Vermont, Massachusetts and Connecticut, on the south-east by the Atlantic Ocean, on the south by New Jersey and Pennsylvania, on the west by Pennsylvania, Lake Erie and the Niagara River, and on the north-west by Lake Ontario and the River St. Lawrence.

The south-eastern angle of the state, about forty miles above New York, is mountainous, being traversed by several ridges from New Jersey, one of which crosses the Hudson at the Highlands. The Catskill mountains, in the counties of Ulster, Green, Albany, and Schoharie, are the highest in the state; Round Top, the principal summit, being 3,804 feet above the level of the sea. The country on Lake Champlain is hilly, and becomes mountainous as you approach the highlands which divide the waters of this lake from those which fall into the St. Lawrence. West of these highlands, a fine country, at first hilly, then level and fertile, extends to the St. Lawrence and Lake Ontario. The western part, lying between Lake Ontario and Pennsylvania, is principally level, except near the Pennsylvania boundary, where it becomes hilly and mountainous. From Genesee river, near its mouth, to Lewistown, on the Niagara River, there is a remarkable ridge, running almost the whole distance, which is seventy-eight miles, and in a direction from east to west. Its general altitude above the neighbouring land is thirty feet, and its width, in some places, is not more than forty yards. Its elevation is about 160 feet above the level of Lake Ontario, to which it descends by a gradual slope, and its distance from that water is between six and ten miles. There is every reason to believe that this ridge was once the margin of Lake Ontario. About twenty miles south of this ridge, and parallel with it, there is another which runs from Genesee River to Black Rock. The country between the ridges is called the Tonnewanta Valley, and there is some reason to believe that it was once covered by the waters of Lake Erie.

The falls of Niagara are, perhaps, the most wonderful natural object in the world.^a They are in Niagara River, about half way between Lake Erie and Lake Ontario. This immense river here rushes over a precipice, and falls perpendicularly to the depth of 176 feet. The roar of the waters can sometimes be heard at the distance of forty miles; and the vapour, which continually rises in clouds from below, can be seen at the distance of seventy miles.—In Mohawk River, about two miles from its mouth, are the falls called the Cahoes, or Cahoes, which have been much admired for their beauty and sublimity. The river, which is here between 300 and 400 yards broad, descends, at high water, in one sheet, to the depth of seventy feet. About three-quarters of a mile below, a bridge has been thrown across the Mohawk, from which the view of the falls is inexpressibly grand. The Saratoga and Ballston springs are the most celebrated in America. Saratoga is thirty miles north of Albany, and a few miles west of the Hudson. Ballston is twelve miles south-west of Saratoga. These springs, during the summer months, are the resort of the gay and fashionable, as well as of invalids, from all parts of the United States. The waters afford relief in many obstinate diseases. The warm springs of New Lebanon, twenty-nine miles south-east of Albany, are visited for bathing.

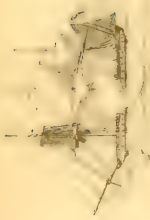
The eastern half of Long Island is sandy and barren; the western part is fertile and in a state of high cultivation. The country on the Hudson, below the mouth of the Mohawk, has a good medium soil. The counties of Westchester and Dutchess are under very good cultivation. The alluvial flats of Columbia and Rensselaer counties are very extensive and rich. A considerable district west of Albany consists of sandy plains interspersed with marshes. The alluvial flats on the Mohawk are extensive and very fertile. The soil of the elevated plain of the western region, occupied by the small lakes, is a rich mould, equally well adapted to grain and grass. The alluvial flats are here extensive; those on the Genesee river include about 60,000 acres. Wheat is raised in this state in greater quantities than all other grain. Indian corn, rye, oats, flax, hemp, &c., are also extensively cultivated.

As New York stretches from north to south four degrees and a half, passing by the states of Vermont, Massachusetts, and Connecticut, the climate of the eastern parts resembles that of these states respectively. In the south-east, towards the sea, the climate is temperate, but subject to very sudden and great changes. After passing the highlands, and going into the western country beyond Utica, the climate

^a It was our intention to have given a lengthened description of this grand and magnificent scene from a manuscript with which we have been presented by a recent traveller, but matter of a more important though not more interesting character, has left so little room within the limits of our work, that the description of the beautiful scenery of the lakes, the Hudson, &c. which would require a volume to do it justice must be omitted.



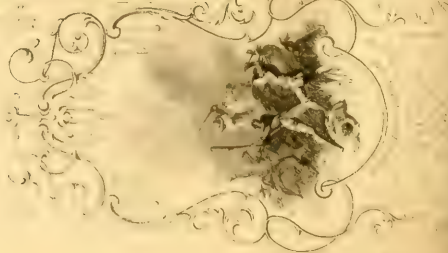
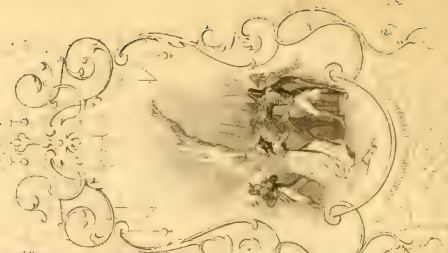
THE GREAT BRITAIN AT SEA, 1859. THE GREAT BRITAIN, THE GREAT BRITAIN, THE GREAT BRITAIN.







VIEW OF THE MOUNTAIN IN THE MOUNTAIN





THE GREAT CANYON,
AND THE LITTLE FALLS IN THE RIVER, MICHIGAN.

THE GREAT CANYON, AND THE LITTLE FALLS IN THE RIVER, MICHIGAN.

THE GREAT CANYON, AND THE LITTLE FALLS IN THE RIVER, MICHIGAN.



becomes milder than it is to the eastward. In the western part, contiguous to Lakes Ontario and Erie, the temperature is moderated by these waters, and does not go to the same extremes as in the south-east. The climate of the whole state is in general healthy, and favourable to cultivation. At Salina, in Onondago county, about thirty miles from Utica, are the celebrated salt springs and salt works, which yield about 500,000 bushels of salt annually, and the manufacture may be extended to any quantity.

The turnpike roads are numerous: the most important is the great western turnpike, leading from Albany to Canandaigua, a distance of 196 miles. The great canal connecting Lake Erie with the Hudson was completed in 1825, and is 360 miles long. The route is as follows: beginning at Albany, on the Hudson, it passes up the west bank of that river, nearly to the mouth of the Mohawk; then generally along the south bank of the Mohawk, through the counties of Albany, Schenectady, Montgomery, Herkimer, and Oneida, to Rome. From Rome it proceeds in a south-west direction, and crosses Oneida creek into Madison county, where it turns to the west, and passes through Onondago county, approaching within a mile and a half of Salina, at the south end of Onondago or Salt Lake. It crosses Seneca River at Montezuma, and, passing by Lyons and Palmyra, strikes the Genessee River at Rochester. West of the Genessee River, it runs on the south side of the Ridge road, and parallel with it for sixty miles, and then, turning to the south, joins Tonnewanta Creek, eleven miles from its mouth in Niagara River. The channel of the Tonnewanta is made use of for these eleven miles, and the canal then proceeds in a southerly direction from the mouth of the Tonnewanta along the east bank of Niagara River to Buffalo, on Lake Erie. This route is divided into three sections: the western section extends from Buffalo to Montezuma, on Seneca River, 155 miles; through this distance the level of the canal uniformly descends from the lake, and the whole descent is 194 feet, by twenty-one locks. The middle section extends from Montezuma to Utica, ninety-six miles; through this distance the level of the canal uniformly ascends, and the whole ascent is forty-nine feet, by nine locks. The eastern section extends from Utica to Albany, 109 miles; through this distance the level of the canal uniformly descends, and the whole descent is 419 feet, by fifty-one locks. The aggregate of rise and fall is, therefore, 662 feet, and the difference of levels between Lake Erie and the Hudson, 564 feet. The canal is forty feet wide on the surface, twenty-eight at the bottom and four feet deep. It was estimated by the commissioners, in 1817, that the whole expense would be 4,881,733 dollars. The canal was commenced on the 4th of July, 1817, and on the 4th of November, 1825, the first boat from Lake Erie arrived at New York. For sixty-seven miles of the middle section, the canal proceeds on the summit level without a single lock. The northern canal extends from Lake Champlain to its junction with the western canal, about eight

miles north of Albany, and its whole extent is about sixty-four miles, estimating forty-eight miles and a half for artificial navigation, and fifteen miles and a half for natural navigation improved. The actual cost of the Erie and Champlain canals was 9,123,000 dollars. The debt contracted for them is 7,771,000 dollars. The tolls, in 1825, amounted to 500,000 dollars. Besides these, there are several other canals: Oswego Canal, completed; length, thirty-eight miles, from Salina to Oswego, connecting the Hudson and Erie Canal with Lake Ontario. Seneca Canal, completed; its length twenty miles, connecting the Seneca and Cayuga Lakes with the Hudson and Erie Canal. Delaware and Hudson Canal; length, sixty-five miles, from Delaware, in Orange county, to the Hudson, near Kingston.

New York takes the lead of all the states in commerce, and perhaps now in manufactures, as it does in population; but the quantity or value of manufactures in any state is very difficult to ascertain. The exports consist of wheat, Indian corn, rye, beef, pork, lumber, pot and pearl ashes, and various manufactures. The value of exports, in 1816, was 19,690,031 dollars; in 1817, 18,707,433; in 1825, 35,259,261, of which 14,607,703 was foreign produce; and a great portion of the domestic produce was from other states. The tonnage in 1821 was 281,148. The duties paid or secured at the custom-house in New York, in 1825, were 15,749,936 dollars.

The following statistical account from Williams's New York Register, (quoted in the American Almanack) furnishes many interesting particulars of the state of New York in 1825. Since that time the number of factories have much increased.

Whole number of souls	1,616,458	Lunatics	819
Males	822,897	Of which 184 are supported by	
Females	793,561	charity.	
Aliens	40,430	Married Females, under 45 years	200,481
Population, excluding aliens, pau-		Unmarried ditto, between sixteen	
pers, and persons of colour not		and forty-five	135,391
taxed.	1,531,648	Do. under sixteen years	361,624
Paupers	5,610	Marriages the year preceding . .	11,553
Persons of colour not taxed	38,770	Births, male 31,514, female	
Do. taxed	931	29,689	60,383
Do. qualified to vote.	298	Deaths, male 12,525, female	
Persons subject to militia duty . .	180,645	10,019	22,544
Do. qualified to vote.	296,132	Acres of improved land.	7,160,967
Deaf and dumb persons	645	Neat cattle	1,513,421
Of which 141 are supported by		Horses	349,628
charity.		Sheep	3,496,539
Idiots	1421	Hogs	1,467,573
Of which 442 are supported by		Yards of fulled cloth, domestic	
charity.		manufacture, preceding year	2,918,233

Ditto Flannel and other woollen cloths, not fulled	3,468,001	Carding machines	1,584
Ditto Linen, cotton, and other cloths	8,079,992	Cotton factories	76
Grist mills	2,274	Woollen factories	189
Saw mills	5,195	Cotton and woollen factories....	28
Oil mills	121	Iron works	170
Fulling mills	1,222	Trip-hammers	164
		Distilleries	1,129
		Asheries	2,105

A large fund in money and lands has been appropriated to the support of common schools. In 1823, there were 7,382 common schools; 400,534 children were educated during eight months, and 182,802 dollars expended from the public funds for this purpose. There is a fund for academies amounting to 150,000 dollars. The colleges also are well endowed: they are, Columbia College, in New York; Union College, in Schenectady; Hamilton College, in Clinton; and two medical colleges, one in New York, the other in Fairfield, Herkimer county.

The Presbyterians have 5 synods, 29 presbyteries, 587 churches, 486 ministers, 124 licentiates, and 54,093 communicants; the Dutch Reformed, 148 churches, 111 ministers, 7 licentiates, and 8,672 communicants; the Associate Synod of North America, 15 congregations, 13 ministers, and 1,668 communicants; the Methodists, 73,174 members; the Baptists, 549 churches, 387 ministers, and 43,565 communicants; the Episcopalians, 129 ministers; the Lutherans, 27 ministers, and 2,973 communicants; the Roman Catholics, Friends, and Universalists are considerably numerous; the Unitarians have 5 societies and 2 ministers, and there are some Shakers, and some United Brethren.

Population of the Counties and County Towns.

SOUTH DISTRICT.					
Counties.	Population, 1820.	Population, 1830.	County Towns.	Population.	Distance. A. ^b | W. ^c
Columbia, E.	38,330	39,952	Hudson	5,395	29 | 335
Dutchess, S. E.	40,615	50,926	Poughkeepsie	7,222	75 | 301
Greene, E. M.	22,996	29,525	Catskill	4,861	34 | 337
King's, S.	11,187	20,537	Flatbush	1,143	156 | 230
New York, S.	123,706	203,007	New York	203,007	151 | 225
Orange, S.	41,213	45,372	Goshen	3,361	105 | 266
Putnam, S. E.	11,268	12,701	Newburgh	6,424	96 | 282
Queen's, S.	21,519	22,276	Carmel	2,379	106 | 306
Richmond, S.	6,135	7,084	N. Hempstead		174 | 248
Rockland, S.	8,837	9,388	Richmond		167 | 221
Suffolk, S. E.	24,272	26,980	Clarkstown	2,298	122 | 251
Sullivan, S.	8,900	12,372	Suffolk, C. H.		225 | 299
Ulster, S. W.	30,934	36,551	Monticello		113 | 278
Westchester, S. E.	32,638	36,456	Kingston	4,170	58 | 313
			Bedford	2,750	135 | 268
Total.	428,550	537,041			

^b From Albany.

^c From Washington.

TOPOGRAPHY OF

NORTH DISTRICT.						
Counties.	Population, 1820.	Population 1830.	County Towns.	Population.	Distance. A. | W. e	
Albany, E. M.	38,116	53,560	ALBANY	24,238		376
Alleghany, W. M.	9,330	26,218	Angelica	998	256	327
Broome, S. M.	11,100	17,582	Binghamton	1,203	145	291
Cattaraugus, W. M.	4,090	16,726	Ellicottsville	626	292	328
Cayuga, M.	38,897	47,947	Auburn	4,486	166	340
Chataque, W.	12,568	34,057	Mayville		336	349
Chenango, S. M.	31,215	37,404	Norwich	3,774	110	332
Clinton, N. E.	12,070	19,344	Plattsburgh	4,913	162	539
Cortland, M.	16,507	23,693	Cortlandville	3,573	142	311
Delaware, S. M.	26,587	32,933	Delhi	2,114	77	341
Erie, W.	15,668	35,710	Buffalo	8,653	284	376
Essex, N. E.	12,811	19,387	Elizabethtown	1,729	126	503
Franklin, N.	4,439	11,321	Malone	2,207	212	523
Genesee, W.	39,835	51,992	Batavia	4,271	244	370
Hamilton, M.	1,251	1,324	Wells	340	72	451
Herkimer, M.	31,017	55,869	Herkimer	2,486	80	392
Jefferson, N. W.	32,952	48,515	Watertown	4,768	160	412
Lewis, N. M.	9,227	14,958	Martinsburgh	2,382	129	431
Livingston, W. M.	19,196	27,719	Genesee	2,675	226	345
Madison, M.	32,208	39,037	{Cazenovia		113	349
			{Morrisville		101	353
Monroe, W. M.	26,329	49,862	Rochester	9,269	219	361
Montgomery, E. M.	27,569	43,595	Johnstown	7,700	45	415
Niagara, W.	7,322	18,485	Lockport	2,022	288	403
			{Utica	8,323	96	383
Oneida, M.	50,997	71,326	{Rome	4,360	107	401
			{Whitesborough		100	387
Onondaga, M.	41,461	58,974	Syracuse		133	342
Ontario, W. M.	35,312	40,167	Canandaigua	5,162	195	336
Orleans, W. M.	7,625	18,485	Albion		257	289
Oswego, W. M.	12,374	27,104	{Oswego	2,703	167	379
Otsego, M.	44,856	51,372	{Richland	2,733	153	397
Rensselaer, E.	40,153	49,472	Cooperstown	1,115	66	372
Saratoga, E. M.	36,052	36,616	Troy	11,405	6	383
St. Lawrence, N. W.	16,073	36,351	Ballston	2,113	29	406
Schenectady, E. M.	13,081	12,334	Potsdam	3,650	216	484
Schoharie, M.	23,154	27,910	Schenectady	4,258	15	391
			Schohaire	5,146	32	381
Seneca, W. M.	17,773	21,031	{Ovid	2,756	171	317
Steuben, S. W. M.	21,989	33,975	{Waterloo	1,837	173	336
			Bath	3,387	216	299
Tioga, S. W. M.	14,716	27,704	{Elmira	2,962	198	273
Tompkins, S. W. M.	26,178	36,545	{Owego	3,080	167	274
Warren, E. M.	9,153	11,795	Ithaca	5,270	163	290
Washington, E.	38,831	42,615	Caldwell	797	62	439
			{Salem	2,972	46	423
Wayne, W. M.	20,319	33,555	{Sandy Hill		50	427
Yates, W. M.	11,025	19,019	{Lyons	3,603	181	345
			{Palmyra	3,434	196	349
			Penn Yann		185	314
Total.	944,262	1,366,467				
Total of New York.		1,913,508, of whom 46 are slaves.				

* From Albany.

* From Washington.



VIEW, FROM VAN DYKSAAR'S ISLAND.



Population at different Periods.

Population.		Population.		Increase.	Slaves.			
In 1701,	30,000	In 1800,	586,050					
1731,	50,395	1810,	959,349	From 1790 to 1800,	21,324			
1749,	100,000	1820,	1,372,812		245,930			
1771,	163,338	1825,	1,616,458		1800	1810,	372,999	15,017
1790,	340,120	1830,	1,913,508		1810	1820,	413,763	10,088
					1820	1830,	540,696	46

Growth of the Cities of New York, Albany, and Troy.

New York.			Albany.		Troy.
In 1696,	4,302	In 1800,	60,489	In 1790,	3,498
1731,	8,628	1810,	96,373	1800,	5,349
1756,	10,381	1820,	123,706	1810,	9,356
1773,	21,876	1825,	167,059	1820,	12,630
1786,	23,614	1830,	203,007	1825,	15,974
1790,	33,141			1830,	24,238
				1810,	3,885
				1820,	5,264
				1825,	7,859
				1830,	11,405

Growth of the Villages of Brooklyn, Rochester, Buffalo, Utica.

Brooklyn.		Rochester.		Buffalo.		Utica.	
In 1800,	3,278	In 1820,	1,502	In 1810,	1,508	In 1810,	1,700
1810,	4,402	1825,	5,271	1820,	2,095	1820,	2,972
1820,	7,175	1826,	7,669	1825,	5,140	1825,	5,040
1830,	12,043	1830,	9,269	1830,	8,653	1830,	8,323

The preceding table indicates how great a number of important towns have arisen in this state. The capital of the state is Albany; but the only one, respecting which our limits will permit us to enter on any details, is the great commercial city of New York.

This city is situated on the point of York Island, at the mouth of the Hudson, in north latitude 40°. It was founded by the Dutch, in 1615, under the name of New-Amsterdam, and was appropriated by the British in 1696. The island on which it stands is fifteen miles long, and from one to three miles broad. The city is situated on the south part of the island, and extends along the Hudson about two miles, and from the Battery along the East River, properly a branch of the Hudson, nearly four miles. The early settlements were commenced at and near the Battery, from which streets were extended without order or regularity; and this accounts for the seeming want of taste in laying out the streets towards the docks and harbour.

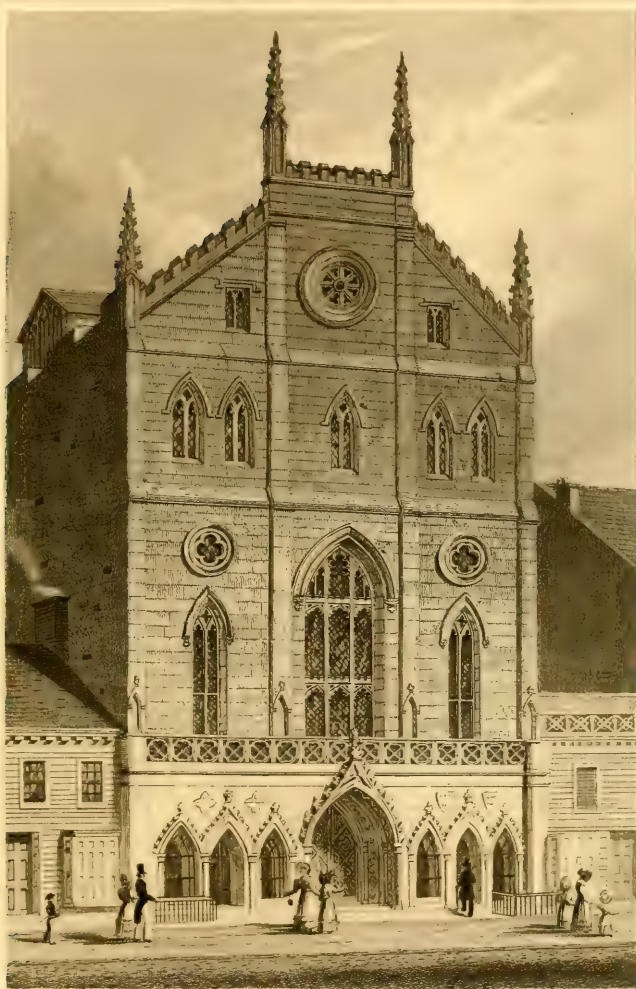
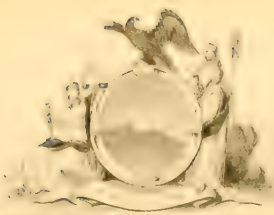
The Battery is situated at the south-west point of the city, opposite to Governor's Island. It is handsomely laid out into gravel-walks, and tastefully decorated with shrubs and trees. It is much frequented by the citizens in the warm season, as well for the purpose of partaking of the refreshing sea-breeze, as for enjoying the prospect, which includes the harbour with its various shipping, Governor's Island, Bedlow's Island, and Ellis's Island, on each of which are military stations; the shores of New Jersey and Long Island, with the flourishing town of Brooklyn, and the numerous country-seats in its vicinity. Castle-garden, connected with the battery by a bridge, is much frequented during the summer evenings. It has a fine promenade, and is often rendered attractive by a display of fire-works from its enclosure, and other amusements.

Broadway, the most splendid street in the city, runs through the centre, and extends three miles in length and about eighty feet in width. It is the great and fashionable resort for citizens and strangers, and is much crowded during pleasant weather. In this avenue are Grace, Trinity, and St. Paul's Churches, the Adelphi Hotel, City Hotel, National Hotel, Franklin House, American Hotel, Washington Hall, Masonic Hall, and a variety of shops, with elegant and extensive assortments of merchandize of every description. Opposite Trinity Church Wall-street opens, which contains the Exchange, and most of the banks, together with the principal part of the brokers' and insurance offices. At the termination of Wall-street, is the Tontine coffee-house, an extensive and handsome establishment. On passing up Broadway still farther, are Cedar and Courtland-streets, both of which lead to the Hudson River, where the steam-boats start for Albany. At the foot of Courtland-street is the ferry to Jersey city. A little further up is Fulton-street, at the corner of which stands St. Paul's Church. Fulton-street leads to the East River; along the docks of which are the steam-boats for the New-England ports. A little below are the boats for Newport and Providence; above, for Brideport, Saybrook, Hartford, New London, and Norwich. The Newhaven boats lie at Fly Market Dock, still farther below. Above St. Paul's Church are the Park and the City Hall, situated in the centre of the city, the former containing about eleven acres, which are ornamented with much taste, and enclosed by a substantial iron railing. It furnishes a cool and fashionable resort for men of business and pleasure, after the fatigue and heat of a summer's day. On the right is the Park theatre, and on the left Park-place, on the west-side of which is Colombia College. The next street above Park-place is Murray-street, which leads to Hoboken Ferry.

Of the public buildings, the most prominent and important is the City Hall, the front of which is built of white marble. It is 216 feet long, 105 feet broad, and, including the attic story, sixty feet high. The rooms for holding the different courts of law are fitted up in a rich and expensive style. The room for holding the mayor's court contains portraits of Washington, of the different governors of the state, and of many of the most celebrated commanders of the army and navy of the United States. The foundation stone of this building was laid in 1803, and the whole finished in 1812, at an expense of 500,000 dollars. It is one of the most elegant edifices in America, and reflects great credit on the inhabitants for their munificence and taste.—The Merchant's Exchange in Wall-street is also a superb structure of white marble. Its front in Wall-street is 114 feet, and its depth, extending to Garden-street, 150 feet. The main body of the building is two stories high, besides the basement and an attic story. About two-thirds of the basement is occupied for the post-office, including a spacious corridor for the convenience of persons visiting the office, with entrances from Wall and Exchange-streets. The portico of the building,



ST. MARTIN'S CHURCH, NEW YORK

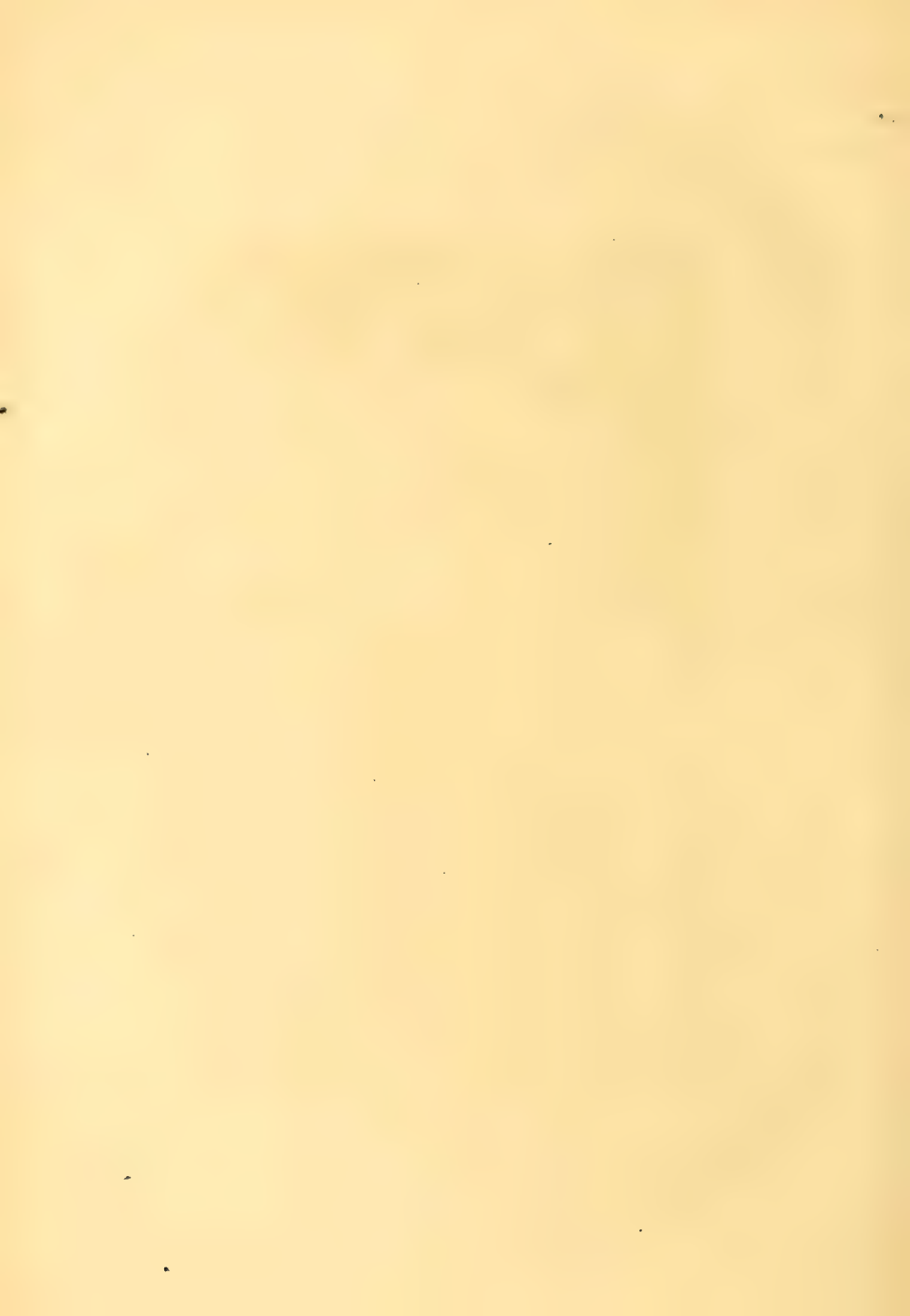


THE CHURCH OF ST. MARY, LONDON.









to which a flight of marble steps ascends, is ornamented with Ionic columns twenty-seven feet high. In the centre is the Exchange, of an oval form, eighty-five feet long, fifty-five feet wide, and forty-five feet high, surmounted with a dome, from which light is reflected. The whole is imposing, and affords a delightful promenade. From the Exchange are doors and passages leading to a commercial reading-room, and numerous newspaper and other offices within the edifice. From the attic story, a flight of stairs leads to a room in the cupola where telegraphic signals are made, which are returned from the telegraph at the Narrows, seven and a half miles distant. The height of the cupola above the attic story is sixty feet. The cost of this building, including the ground, was 230,000 dollars. It was commenced in 1824; and completed in three years.—The United States Branch Bank, in Wall-street, is an elegant white marble building, sixty feet in front. The ground on which it was erected cost 40,000 dollars.

Trinity Church, in Broadway, at the head of Wall-street, from its antique appearance generally attracts the notice of strangers. The first church on this spot was erected in 1696. Originally small, it was enlarged in 1737; but during the fire which destroyed the western part of the city in 1776, while the British troops were in possession, it was destroyed, and was not rebuilt till 1788. The present building is of stone, in the gothic style, much like the old one, except its diminished size, and has a steeple 198 feet high. It contains a chime of bells, the only set in the city, and an excellent organ.—St. Paul's Chapel is a superb structure further up the Broadway, near the Park. It contains a portico of the Ionic order, consisting of four fluted pillars of brown stone, supporting a pediment, with a niche in the centre containing a statue of St. Paul. Under the portico is a handsome monument erected by order of congress to the memory of General Montgomery, who fell at the storming of Quebec in 1775, and whose remains were brought to New York, and interred beneath the monument, in 1820. The spire of this church is 234 feet high; and the whole building is esteemed one of the best specimens of architecture in the city. In the church-yard adjoining is an elegant monument, recently erected to the memory of Thomas Addis Emmet, an eminent counsellor at law, and brother of the unfortunate Irish orator, Robert Emmet. The plinth of the monument is one entire block, seven feet square and twelve inches thick. The Egyptian obelisk standing on this base is also in a single piece, and is about thirty-two feet high. The face towards Broadway is embellished with the American eagle sheltering a harp unstrung, with a medallion likeness of Emmet, and with two clasped hands, having stars around one wrist, and shamrocks around the other. On the north-side is a Latin, and on the south an Irish inscription. There are nearly 100 other churches in the city, many of which were erected at a very considerable expense, and are ornaments to the sections of the city in which they stand.

Columbia College, above the City Hall, was chartered in 1750, under the name of King's College. The edifice and grounds attached are extensive, and are advantageously and handsomely situated. The college contains a chapel, lecture-rooms, hall, library, museum, and an extensive philosophical and astronomical apparatus.

The New York Society Library, in Nassau-street, was commenced in 1740, and at the commencement of the revolution contained 3,000 volumes, which were destroyed or taken away by the British troops. It was re-established in 1789, and now consists of about 20,000 volumes, many of which are rare and valuable. The Athenæum, Broadway, corner of Pine-street, contains a reading-room, which is open daily, except Sundays. The New York Institution is in the rear of the City Hall. Its apartments are occupied by the Literary and Philosophical Society, the Historical Society, the American Academy of Fine Arts, the Lyceum of Natural History, the American Museum, and the Asylum for the Deaf and Dumb. The Historical Society has a library of 10,000 volumes, embracing many valuable works. Near the institution are the Savings' Bank and Panorama Rotunda; and a little further up Broadway, the New York Hospital. The annual expenditure in this institution is about 40,000 dollars, and the annual number of patients from 140 to 180.

The Park Theatre is a spacious edifice. It was built in 1798, at an expense of 179,000 dollars, was destroyed by fire in 1820, and rebuilt the following year. It is eighty feet long, 165 deep, and fifty-five high, and has generally been more liberally patronized than any other theatre in the city. The New York Theatre, in the Bowery, displays much architectural beauty, and, among the modern ornaments of the city, stands preeminent. It has a front of seventy-five feet, is 175 feet deep, and fifty feet high. It enjoys a handsome patronage. Besides these places of amusement, there is a theatre in Chatham-street, and a circus in Broadway, between Canal and Grand streets.

Brooklyn (on Long Island), directly opposite New York, from which it is separated by the East River, is usually reached by steam-boats, which are constantly plying between the foot of Fulton-street and that village. It is in fact a town, having a population of about 15,000, and within a few years has risen to some importance. Its contiguity to New York, and the facilities afforded for communication between the two places, have induced many merchants and men of business to select it as a place of residence in preference to the upper parts of the city. The village also contains several elegant country-seats and public gardens. Those on the bank contiguous to the East River, from their elevated situation, overlooking the bay of New York, and commanding a view of a great part of the city, are peculiarly attractive and romantic. North-east of the village, on a tract of land called the Wallabout, is a United States navy-yard, where are erected a house for the commandant, several spacious warehouses, and an immense edifice of wood, under which the largest ships of war

THE SCENERY OF THE GREAT WESTERN RAILWAY
 FROM THE STATION AT WEST LONDON TO THE
 STATION AT WEST LONDON



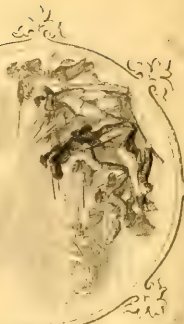
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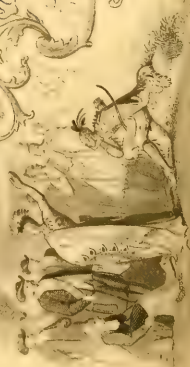
THE GREAT CANYON, NEW YORK







THE SUSPENSION BRIDGE, AT THE FALLS OF THE GREAT FALLS, IN THE STATE OF NEW YORK.







BOUNCE OF THE PASSAGE FALLS.



THE END OF THE WORLD

are built. The steam-frigate *Fulton*, which lay near the navy-yard and was an object of attraction, was blown up at this place in 1829, occasioning the loss of several lives.

NEW JERSEY

Is bounded on the north and north-east by New York; on the east and south-east by the Atlantic; on the south-west by Delaware Bay; and on the west, by Pennsylvania.^f The extreme length is directly from south to north, 170 miles; area, 7,870 square miles; mean breadth, forty-six miles.

New Jersey presents three very marked divisions; first, a marine or sandy section; secondly, a hilly or middle section; and, thirdly, a mountainous section. The first occupies nearly one-half the area of the state. A line from the mouth of Shrewsbury River to Bordentown, will very nearly separate the alluvial from the hilly tract. Between this natural limit and the continuation of the Blue Ridge, New Jersey is delightfully variegated by rich and bold scenery. This hilly region contains the counties of Middlesex, Hunterdon, Somerset, Essex, Morris, and Bergen. It is also decorated by several mountain ridges, but the true mountain portion of New Jersey is the extreme northern part of the state, composed of the counties of Warren and Sussex. The descent from the mountain to the hilly region is not by a gentle declivity, but abruptly, as by the steps of a stair. The elevation of the different sections has not been very accurately determined, but the higher valleys of Sussex county must be from 800 to 1000 feet above the tide.

As it declines from north to south, difference of latitude and of level cooperate in New Jersey, and in a space less than two and a half degrees of latitude a very remarkable change of climate is perceptible. The level sandy plains of the southern extreme approximate to the temperature of eastern Virginia, and admit the cultivation of cotton, whilst the seasons of Warren and Sussex counties resemble those of Vermont and New Hampshire. This state has the two large and increasing cities of New York and Philadelphia on its borders; and, taken in every respect, it may be doubted whether it is not the most advantageously situated of any political subdivision of the republic.

A connexion between the Hudson and Delaware basins was thought desirable by the Morris Canal. The line of it to leave the Delaware at Phillipsburgh, opposite Easton, in Pennsylvania, and be carried over Warren county, New Jersey, to its extreme north-east angle about thirty miles; thence eastward, through Morris and Essex counties, to the Passaic River, and along the valley of the latter to Newark; leaving that city, to cross Passaic and Hackinsack, and wind through the Bergen

^f Longitude, 74° to 75° 29'; latitude, 39° to 41° 24'

Marshes to Jersey city, opposite New York. The Delaware and Raritan Canal, thence extending from Lambertton on the Delaware, below Trenton, to New Brunswick on the Raritan, a distance of thirty-eight miles, was commenced to establish a much-desired communication between those places. It was planned to be seven feet deep throughout, and seventy-five feet wide at the water line. The water to supply this canal to be conducted by a navigable feeder five feet deep, and fifty feet wide at the water line, extending from Eagle Islands on the Delaware, to its junction with the main canal at Trenton, about twenty miles. The whole expense of the canal, feeder, &c., was originally estimated at 1,438,227 dollars.

Charters for four rail-roads have been granted by the legislature within two years, the state having reserved the right to levy a transit duty upon the goods, &c. transported upon them, which is expected to yield a large revenue when the works shall be completed. The most important of these enterprises is the Camden and Amboy rail-road, the charter of which was granted in 1829, and which is to extend from Amboy to Camden, a distance of sixty-one miles. The part of this rail-road which extends from Amboy to Bordentown, thirty-four miles in length, with a deviation of only three-quarters of a mile in the whole distance from a right line, was expected to be completed in November, 1831; and the other part from Bordentown to Camden, a distance of twenty-seven miles, to be finished early in the summer of 1832.—The Paterson and Hudson River rail-road is to extend from Paterson to Jersey city, a distance of fourteen miles. The stock has been taken up, and preparation is making to begin the work early in the spring of 1832. The other two rail-roads for which charters have been granted, are the Elizabethtown and Somerville rail-road, and the West Jersey rail-road; but the construction of them has not yet been begun. A rail-road has been commenced, and we believe is nearly completed, from Perth Amboy to Trenton, and is designed to be continued to Camden, opposite Philadelphia. This will render it practicable to go from New York to Philadelphia (100 miles), and return the same day.

New Jersey abounds in staples, composed of every product of its fields, woods, mines, fisheries, and manufactories. Its manufactures are extensive and thriving. Iron is one of the principal. In July, 1825, there were at Patterson twelve cotton mills in operation, moving 22,000 spindles; three woollen factories, two duck factories, &c. In Trenton, also, there are manufactories of cotton and woollen goods. In Trenton, Newark, and Elizabethtown, are many valuable tanneries. Shoes are made in great numbers at Newark. Almost all the foreign goods consumed in this state are imported at New York and Philadelphia, and the produce of the state is principally carried to those cities for exportation.

The College of New Jersey, at Princeton, was founded in 1738, and has always

been one of the most respectable and flourishing literary institutions in the country. In 1820, it had a president, who also instructed in the holy scriptures, the evidences of divine revelation, moral philosophy, and logic; a vice-president, who was also professor of languages and belles lettres; a professor of mathematics and mechanical philosophy; a professor of chemistry, experimental philosophy, and natural history; three tutors, and 121 students. The college library contains about 8,000 volumes; the philosophical apparatus is complete; and the cabinet of mineralogy and natural history is valuable. The college edifice is styled Nassau Hall, in honour of the Prince of Orange. The whole number of alumni of the college, in 1815, was 1,425, of whom 1,023 were then living.—A Theological Seminary was established at Princeton, in 1821, under the direction of the general assembly of the Presbyterian church. It has two professors,—one of didactic and polemic theology, the other of ecclesiastical history. The edifice for the accommodation of the institution, is an elegant stone building, 150 feet by fifty, four stories high, and contains rooms for 100 students. The term of study is three years. The number of students, in 1821, was seventy-three.—Queen's College was established in New Brunswick by the ministers of the Dutch reformed church, for the education of their clergy, and incorporated in 1770. In 1810, a Theological Seminary was established in the city by the general synod of the reformed Dutch churches, and, to a certain extent, connected with the college. The exercises of Queen's College, which had been suspended for several years, were revived in the autumn of 1825, under very favourable auspices. This state possesses a school fund which yields an annual income of about 22,000 dollars, and, by a law passed in 1829, the sum of 20,000 dollars was appropriated to be annually distributed in small sums to such towns as would voluntarily raise an equal sum for the support of schools. At a public meeting of the friends of education, in 1828, a committee was appointed to procure and publish information relating to the condition of schools. From the statements published by this committee, it appears that, in the whole state, 11,742 children were entirely destitute of instruction, and that about 15,000 adults were unable to read. In many towns, more than half of the children never attended school. In Sussex and Warren counties, forty-nine districts were destitute of schools; and in the rich and flourishing county of Essex, 1,200 children were destitute of instruction. Among the families visited by the agent of the bible society, eighteen were found in which none of the members could read. The system of instruction in the schools which are supported, is stated to be very defective, owing, in many instances, to the want of well qualified teachers. It is gratifying to see that the friends of education are engaged in efforts to change this state of things.

The Presbyterians have 85 churches, 88 ministers, 20 licentiates, and 12,519 communicants; the Methodists, 10,730 members; the Dutch Reformed, 28 churches and 28 ministers; the Baptists, 34 churches, 21 ministers, and 2,324 communicants;

the Episcopalians, 20 ministers; the Friends are numerous, and there are some Congregationalists.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Distance, T. s W. b	
Bergen, N. E.	18,178	22,414	Hackensack	63	229
Burlington, M.	28,822	31,066	Mount Holly	21	156
Cape May, S. E.	4,265	4,945	Cape May C. H.	102	204
Cumberland, S.	12,668	14,091	Bridgetown	69	175
Essex, N. M.	30,793	41,928	Newark	49	215
Gloucester, S. M.	23,039	28,431	Woodbury	39	115
Hunterdon, W. M.	28,604	31,066	TRENTON		166
Middlesex, M.	21,470	23,157	Flemington	23	182
Monmouth, E.	25,038	29,233	New Brunswick	27	193
Morris, N. M.	21,368	23,580	Freehold	36	201
Salem, S. W.	14,022	14,155	Morristown	55	221
Somerset, M.	16,506	17,689	Salem	65	171
Sussex, N. W.	32,752	20,349	Somerville	33	199
Warren, N. W.		18,634	Newton	70	228
			Belvidere	54	210
Total.	277,575	320,779, of whom 2,446 are slaves.			

Population at different Periods.

Population.	Increase.	Slaves.
In 1790, 184,139		11,423
1800, 211,149	From 1790 to 1800, 27,010	12,422
1810, 245,562	1800 1810, 34,413	10,851
1820, 277,575	1810 1820, 32,013	7,557
1830, 320,779	1820 1830, 42,204	2,246

Population of East and West Jersey in 1701, 15,000; in 1749, 60,000.

Population of the principal Towns in 1830.

Newark	10,953	Paterson	7,731	Elizabethtown	3,451
New Brunswick	7,831	Trenton	3,925		

Trenton, the seat of government, is on Delaware River, at the falls, thirty miles north-east of Philadelphia, and sixty south-west of New York. At the foot of the falls, there is an elegant bridge over the Delaware, 1,100 feet long and thirty-six wide. Steam-boats ply regularly between Trenton and Philadelphia. New Brunswick is on the Raritan, thirty-three miles south-west of New York. Half the inhabitants are of Dutch origin. Steam-boats ply regularly between this city and New York. Princeton is a pleasant village, eleven miles north-east of Trenton, and sixteen south-west of New Brunswick. Newark is pleasantly situated near the west bank of the Passaic River, two or three miles from its mouth. In this and the adjoining town of Orange, there are valuable quarries of stone for building, and numerous tanneries. Elizabethtown is pleasantly situated on Elizabethtown Creek, which empties itself into Staten Island Sound. Vessels of twenty or thirty tons come up to the town, and those of 200 or 300 tons come as far as Elizabethtown Point, at the mouth of the creek, two miles distant. A steam-boat plies between the city of

^a From Trenton.

^b From Washington.

New York and Elizabethtown Point. Burlington is on Delaware River, opposite Bristol, eleven miles below Trenton. Perth Amboy is on a point of land, at the union of Raritan River with Arthur Kull Sound. It has one of the best harbours on the continent.

PENNSYLVANIA.

THIS important state occupies from the 74° of west longitude, to more than half the 81°, and from 39° 43' of north latitude, to 42°: which gives a length of 307 miles, and a breadth of 190. Mr. Darby states the square miles to be 47,000, or 29,935,200 acres.

It may be doubted whether a more widely diversified region exists on the face of the earth than Pennsylvania, or one of similar area on which the vegetable and mineral productions are more numerous. In a state of nature, the streams of this state flowed through a dense forest. No part of Pennsylvania is level, and in respect to surface it is divisible into three natural sections: first, a small but important hilly tract between the marine alluvium and the lower ridges of the Apalachian system; second, the mountainous, or middle section; and third, the western hilly. The subjoined tabular view presents the respective area of these sections, and their population according to the census of 1820.

Sections.	Square Miles.	Aggregate Population.	Population to the square mile.
Eastern.....	7,869	569,355	77
Middle or mountainous	25,189	260,506	10
Western	13,942	219,597	16 $\frac{1}{2}$
	47,000	1,048,458	22

From political causes the great body of the population has spread over the eastern, southern, and western borders, and left the central and northern a comparative wilderness.

The difference of level in Pennsylvania, if the mountain plateaus are included, is about 1200 feet, or an equivalent to three degrees of latitude; so that extremes of temperature over the state extend to about 5°. Pennsylvania is emphatically a country congenial to wheat, meadow grass, and the apple; but it admits a wide diversity of other vegetable productions. Except rice, it embraces the whole list of cerealia cultivated in the United States; and amongst fruits, besides the apple, peaches, pears, and plums abound. Of indigenous forest trees this state yields as great a variety as is to be found on the globe in a zone two degrees and one third wide, and not quite six degrees in length. The terebinthine forests are in great part confined to the mountains, and the deciduous trees to the eastern and western sections. In the latter the sugar maple becomes plentiful. The productive soil is in a remarkable manner

equally distributed, and some of the most fertile bottoms in the state are included in the mountain section.

This state affords marble of a beautiful variety and excellent texture, which has contributed to adorn the eastern towns, and even the farm houses of the state. Iron and anthracite coal follow marble, and exist in quantities which defy exhaustion. Iron abounds over the whole state; and where the anthracite coal ceases the bituminous commences, and seems to underlie great part of the western, and some of the central portions of it. In the region of bituminous coal, wherever the earth has been penetrated to any great depth, salt water has been found; and salt works, on a large scale, exist on the Conemaugh, and in some other parts of the western section.

Pennsylvania is advantageously situated in respect of navigable rivers. Of these the Delaware on the east, the Susquehanna in the centre, and the Ohio on the west, claim the precedence. Few states in the Union have undertaken and executed more in the way of internal navigation; and no other state has such extensive works in actual progress. The Lehigh River, above Easton, to Mauch Chunk or Lehigh coal mines, has been rendered navigable by dams and falling locks. A canal is now in progress from Easton down the Delaware to Bristol; in length about fifty miles. The Schuylkill River has been completely canalled, from tide water at the city of Philadelphia to the extensive coal mines on its sources, upwards of 110 miles. To unite the Schuylkill navigation to that of the Susquehanna the Union Canal has been constructed, following the vallies of Tulpehocken and Swatara Creeks, from Reading in Berks to Middle town in Dauphin county. The Union is a link in a chain now in progress, for uniting the Susquehanna, Juniata, and Alleghany rivers to the city of Pittsburg. Beside these extended lines, there exists a small but important canal, to pass the rapids or Conewago Falls at York Haven on the Susquehanna; the Conestogo Canal of eighteen miles opens by that creek a navigable channel from the city of Lancaster to the Susquehanna River. A rail-road and other improvements to connect Philadelphia, Lancaster, and Columbia, were thought desirable.

Pennsylvania ranks high in the variety and extent of her manufactures, some of which are of superior excellence. In 1810, there were sixty-four cotton manufactories, forty-four blast furnaces, six air furnaces, four bloomeries, seventy-eight forges, fifty trip hammers, eighteen rolling and slitting mills, 175 naileries, sixty-four paper mills, eight glass works, thirty-five rope walks, and 108 printing offices. The total amount of the manufactures, embracing 220 articles, was 44,194,740 dollars. Most of the foreign goods consumed in this state, in Delaware, and the western part of New Jersey, are imported at Philadelphia. Goods to the amount of many millions of dollars are annually transported from Philadelphia to Pittsburg, and thence

distributed through the western country. In 1815, the amount of revenue paid by this state into the national treasury, was 7,142,333 dollars, an amount greater than that of any state except New York. The value of exports from this state, in 1825, was 11,269,981 dollars, of which, 7,333,848 dollars was foreign produce. The imports in the same year, were 15,041,977 dollars.

The University of Pennsylvania, established in Philadelphia, is a very respectable institution, embracing the four departments of arts, medicine, natural science, and law, in each of which lectures are given. There are four professors in the department of arts, five in that of natural science, one in the law department, and seven in the medical department. The latter is one of the most flourishing institutions of the kind in the world, and usually affords instruction to about 500 students from various parts of the United States. Dickinson College, at Carlisle, is now a very respectable institution. In 1826, the legislature made a grant of 3,000 dollars per annum to aid its funds. Washington College, at Washington, twenty-six miles south-west of Pittsburg, had, in 1817, a president, two professors, a library, and a philosophical apparatus. Alleghany College, at Meadville, was founded in 1815. Jefferson College is situated at Canonsburg, in Washington county. A university has recently been established near Pittsburg, and endowed by the legislature.

Though Pennsylvania has many literary and benevolent institutions, yet the progress of general education in the state has been slow, and it is still very limited. In the Report of the Pennsylvania Society for the Promotion of Public Schools, dated April 28, 1831, it is said, "There is reason to believe that the attention of the citizens is so awakened to the importance of establishing public schools, that the attempt will not hereafter fail to be encouraged. The society will recollect, that at their last meeting, [Oct. 11, 1830,] there was read a memorial, proposed to be presented to the legislature, which contained statements relative to the great deficiency in the means of education in various parts of the state, and urged the importance of speedily applying a remedy to this evil." From the memorial alluded to the following extract is made: "There are at least 400,000 children in Pennsylvania, between the ages of five and fifteen. Of these, during the past year, there were not 150,000 in all the schools in the state. Many counties, townships, and villages have been taken indiscriminately from all parts of the state, and been examined by your memorialists, and the average proportion of children educated, in any one year, compared with the entire number of children between the above specified ages, appears to be but one out of three. It is probable that this proportion prevails generally through Pennsylvania, and justifies the assertion, that more than 250,000 children capable of instruction were not within a school during the past year. Many of these children never go to school at all." In the city and county of Philadelphia, there are ample means for the education of every child, and many thousands have been benefited

by them. In that district, and we believe the case is the same in the city of Lancaster, no one need be uneducated, except from choice.

The Presbyterians have 429 churches, 209 ministers, 39 licentiates, and 38,873 communicants; the Methodists, 140 preachers, and 46,390 members; the Baptists, 144 churches, 96 ministers, and 7,561 communicants; the German Reformed Church, 282 churches, and 73 ministers; the Episcopalians, 60 ministers; the Associate Presbyterians, 39 congregations, 18 ministers, and 4,180 communicants; the Evangelical Lutherans, 2 synods; the Dutch Reformed Church, 6 churches and 6 ministers; the Friends are numerous; the United Brethren have about 15 congregations; the Unitarians, 5 congregations and 3 ministers; and there is a considerable number of Roman Catholics, some Universalists, Jews, &c.

Population of the Counties and County Towns.

EASTERN DISTRICT.						
Counties.	Population, 1820.	Population, 1830.	County Towns.	Population.	Distance. H. ¹ | W. ²	
Adams, s.	19,370	21,379	Gettysburg	1,473	34	76
Berks, s. E.	46,275	53,357	Reading	5,859	52	143
Bucks, s. E.	37,842	45,740	{ Doyleston	1,262	107	163
Chester, s. E.	44,451	50,908	Bristol		122	159
Cumberland, s. M.	23,606	29,218	West Chester	1,258	75	115
Delaware, s. E.	14,810	17,361	Carlisle	2,523	18	104
Dauphin, s. E. M.	21,653	25,303	Chester	848	95	121
Franklin, s.	31,892	35,103	HARRISBURG	4,311		110
Lehigh, E.	18,895	22,266	Chambersburg	2,794	48	90
Lancaster, s. E.	68,336	76,558	Allentown		85	178
Lebanon, s. E. M.	16,988	20,546	Lancaster		35	109
Montgomery, E.	35,793	39,404	Lebanon	7,704	24	134
Northampton, E.	31,765	39,267	Norristown	1,826	88	143
Perry, M.	11,342	14,257	Easton	1,089	101	190
Philadelphia, s. E.	73,295	108,503	New Bloomfield	8,529	36	122
Philadelphia, city	63,802	80,458	{ Philadelphia	80,458	98	136
Pike, E.	2,894	4,843	Milford		157	249
Schuylkill, E. M.	11,339	20,783	Orwigsburg	773	59	167
Wayne, N. E.	4,127	7,663	Bethany	327	162	265
York, s.	38,759	42,658	York	4,216	24	87
WESTERN DISTRICT.						
Allegheny, w.	27,673	37,964	{ Pittsburg	12,542	201	223
Pittsburg, city	7,248	12,542	Kittanning		183	215
Armstrong, w.	10,324	17,625	Beaver	914	229	151
Beaver, w.	15,340	24,206	Bedford	870	105	126
Bedford, s.	20,248	24,536	Towanda		128	239
Bradford, N.	11,554	19,669	Butler	580	203	236
Butler, w.	10,193	14,683	Ebensburg	270	131	178
Cambria, M.	2,287	7,079	Bellefonte	699	85	192
Centre, M.	13,796	18,765	Clearfield		129	201
Clearfield, M.	2,342	4,803	Columbia, E. M.		65	175
Columbia, E. M.	17,621	20,049	Crawford, N. W.	1,070	236	297
Crawford, N. W.	9,397	16,005	Erie	1,329	272	333
Erie, N. W.	8,553	16,906				

¹ From Harrisburg.

² From Washington.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Population.	Distance.	
					E. ¹	W. ^m
Fayette, s. e.	27,285	29,237	Uniontown	1,341	184	193
Greene, s. e.	15,554	18,028	Waynesburg		222	229
Huntingdon, m.	20,144	27,159	Huntingdon		90	148
Indiana, w. m.	8,882	14,251	Indiana	433	157	189
Jefferson, w. m.	561	2,225	Brookville		165	236
Luzerne, e. m.	20,027	27,304	Wilkesbarre	2,233	114	222
Lycoming, m.	13,517	17,637	Williamsport		87	196
McKean, n.	728	1,439	Smithport		200	273
Mercer, w.	11,681	19,731	Mercer	656	235	267
Mifflin, m.	16,618	21,529	Lewistown	1,479	55	162
Northumberland, m.	15,424	18,168	Sunbury	1,057	52	162
Potter, n.	186	1,265	Cowdersport		174	283
Somerset, s.	13,974	17,441	Somerset	649	143	165
Susquehanna, n. e.	9,660	16,777	Montrose	415	163	271
Tioga, n.	4,021	9,062	Wellsborough		147	253
Union, m.	18,619	20,749	New Berlin		60	168
Venango, w.	1,976	4,706	Warren		240	313
Warren, n. w.	40,038	42,860	Washington	1,816	212	229
Washington, s. w.	4,915	9,128	Franklin	409	212	279
Westmoreland, s. w.	30,540	38,400	Greensburg	810	170	192

Population of Pennsylvania and Philadelphia at different Periods.*

Penn.	Pop.	Increase.		Slaves.	Philadel.	Pop.	Dwellings.
In 1701,	20,000				In 1731,	12,000	In 1700, 700
1763,	280,000	From 1701 to 1763,		260,000	1753,	18,000	1749, 2,076
1790,	434,373	1763	1790,	154,373	1790,	42,520	1763, 2,969
1800,	602,545	1790	1800,	168,172	1796	70,287	1776, 5,460
1810,	810,091	1800	1810,	207,546	795	1810, 96,664	1790, 6,651
1820,	1,049,313	1810	1820,	239,222	211	1820, 119,325	1801, 11,200
1830,	1,347,672	1820	1830,	298,659	386	1830, 167,811	1810, 15,814

Population of Pittsburg, Lancaster, Reading, and Harrisburgh at different Periods.*

Pittsburg.	Lancaster.	Reading.	Harrisburgh.
In 1800, 1,565	In 1800, 4,292	In 1800, 2,385	In 1800, 1,472
1810, 4,768	1810, 5,405	1810, 3,463	1810, 2,289
1820, 7,248	1820, 6,663	1820, 4,332	1820, 2,990
1830, 12,542	1830, 7,704	1830, 5,859	1830, 4,311

Philadelphia stands on the west bank of the river Delaware, five miles from its confluence with the Schuylkill, which forms the western boundary of the city. It was founded in 1682, and incorporated in 1701. The charter being abrogated at the revolution, it remained under a provincial government till 1789, when it was incorporated a second time. Its present population is upwards of 130,000. The city is built in streets of from fifty to 100 feet in width, running parallel and at right angles to each other. They are handsomely paved, and are kept remarkably

¹ From Harrisburg.

^m From Washington.

* The population of Pennsylvania, including Delaware, in 1749, is stated in Holmes's Annals, vol. ii. p. 538, and in the American Almanac for 1830, at 250,000; and Martin's London Magazine for 1755-6, states it, at that time, at 250,000. The records of Pennsylvania, for the year 1757, contain the following remark: "The inhabitants have never been numbered, but it is believed by good judges that they amount to 200,000 in the province and counties."—*Hazard's Penn. Register*, vol. v. p. 339.

o The population of Pittsburg here given is that of the city only. Its population, including the suburbs, or contiguous villages, is upwards of 17,000.

clean. The houses exhibit an appearance of neatness, uniformity, and commodiousness, and many of them are ornamented with white marble. The Delaware is about a mile wide, and is navigable for ships of a large size. The most conspicuous buildings are the Churches, the State house, the United States and Pennsylvania Banks, and the Institution for the Deaf and Dumb. The bank of the United States was established there in 1816, with a capital of 35,000,000 dollars. The banking house is a splendid structure, built on the plan of the Parthenon at Athens, and is situated in a north and south direction, fronting Chesnut and Library streets, having eight fluted columns, four feet six inches in diameter, embracing the whole front. On each of the fronts is a portico, projecting ten feet six inches. The whole length of the edifice, including the portico, is 161 feet, and its breadth eighty-seven feet. The main entrance is from Chesnut-street, by a flight of six marble steps, extending along the whole front of the portico. The banking room occupies the centre of the building, being forty-eight feet wide, and eighty-one feet long. The whole body of the building is arched in a bomb-proof manner, from the cellar to the roof, which is covered with copper. There are in this city eighty-eight houses for public worship, ten banks, thirteen insurance companies, of which eight are marine, four for fire, and one for lives and annuities, a custom-house, an exchange, and a chamber of commerce.

The State house in which the continental congress sat, and from whence the declaration of independence issued, is still standing. It is in Chesnut-street, built of brick, comprising a centre and two wings, and has undergone no material alteration since its erection. It has a venerable appearance. It is surmounted by a cupola, having a clock, the dial of which is glass, and which is illuminated at night until ten or eleven o'clock, shewing the hour and minutes until that time. The front is a considerable distance back from the street, the approach being paved to the curb-stone with brick, and two elegant rows of trees extending its whole length. East of the main entrance, in the front room, the sessions of the congress were held, and the question of independence was decided.

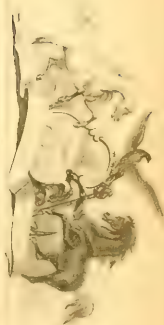
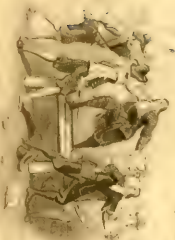
The arcade in Philadelphia, like that at New York, has proved a bad speculation: the former is twice the size of the latter, and appears to be more deserted. It contains Peale's Museum, one of the best in the United States, and comprising the most complete skeleton of the Mammoth perhaps in the world. It is perfect, with the exception of a few bones, which have been supplied by imitation. The Academy of Arts, in Chesnut-street, contains a large number of paintings, several of which are the property of Joseph Buonaparte. Among these is one executed by David, representing Napoleon crossing the Alps. Another is a full-length portrait of Joseph himself, as king of Spain.

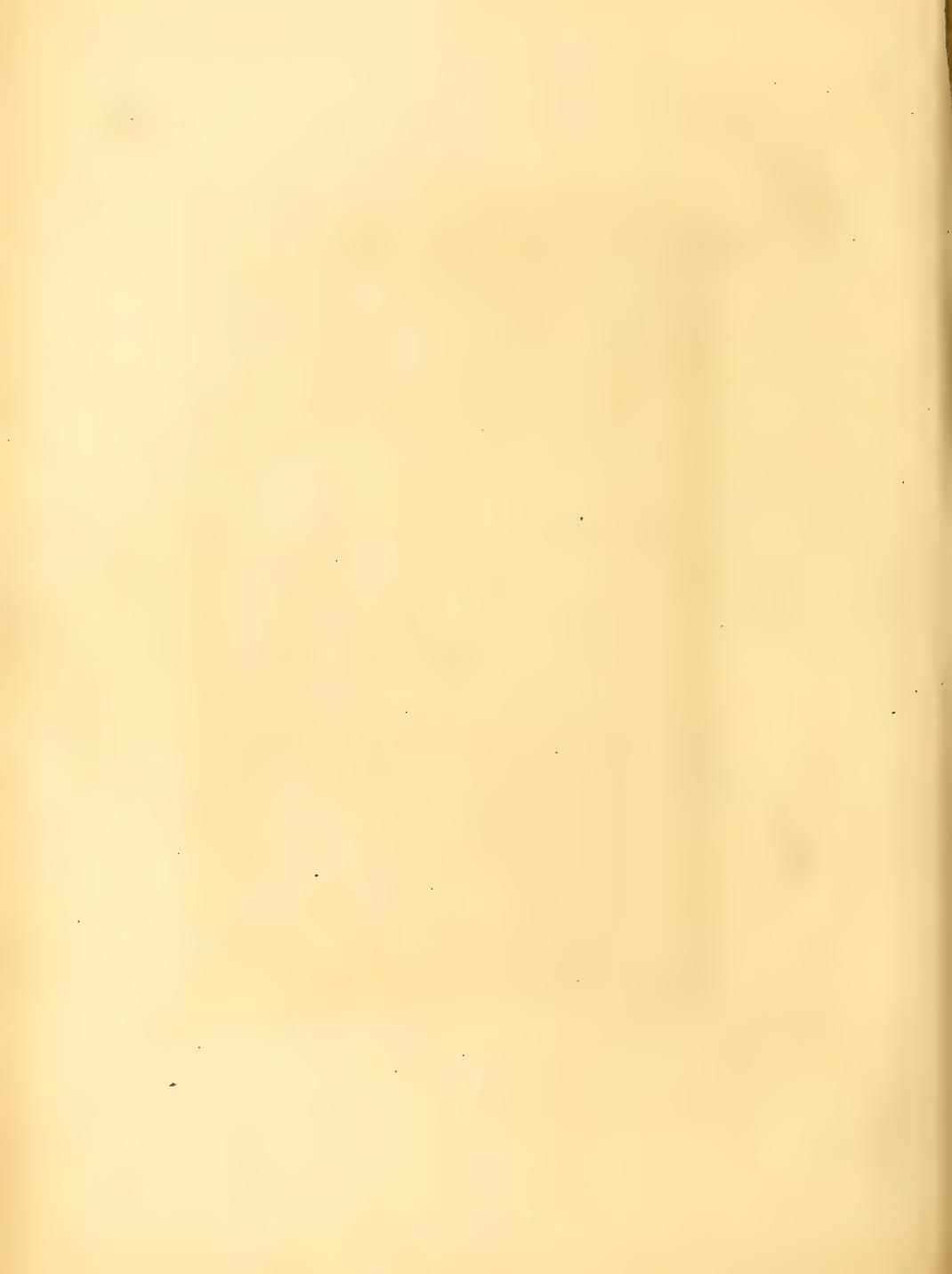
- Of the public works of Philadelphia, there are none of which its inhabitants are





TEMPLE OF MARS ULTOR, FORUM OF AUGUSTUS.











THE FAIR MOUNT WATER WORKS, PHILADELPHIA.

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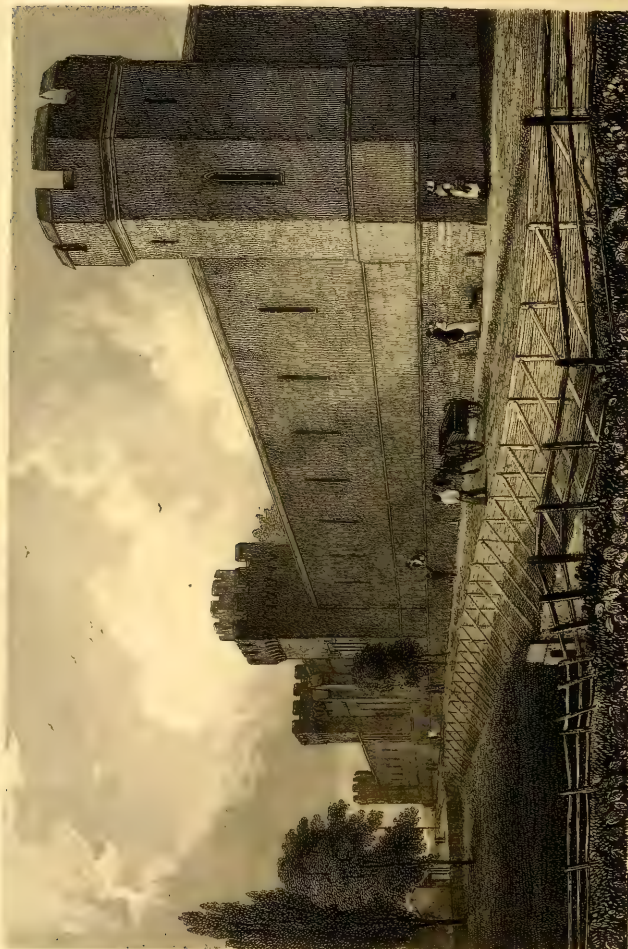


THE GREAT SUSPENSION BRIDGE, AND THE MOUNT WATNA, MOUNTAIN, MOUNTAIN.

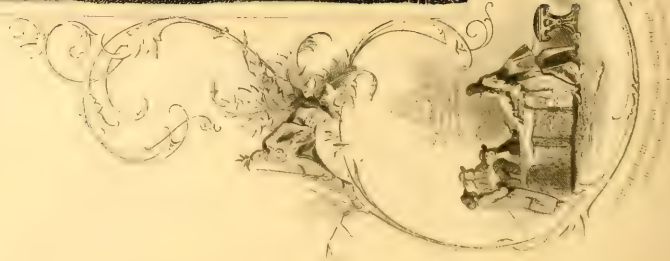
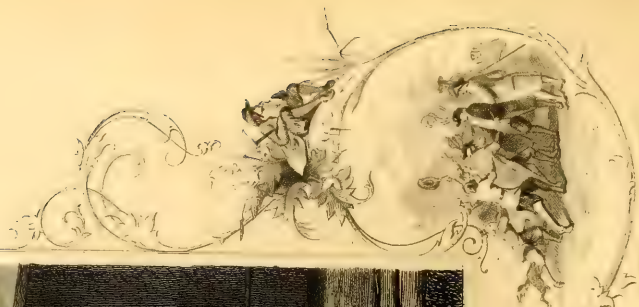
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PONT-FRANÇOIS, PARIS, FRANCE.



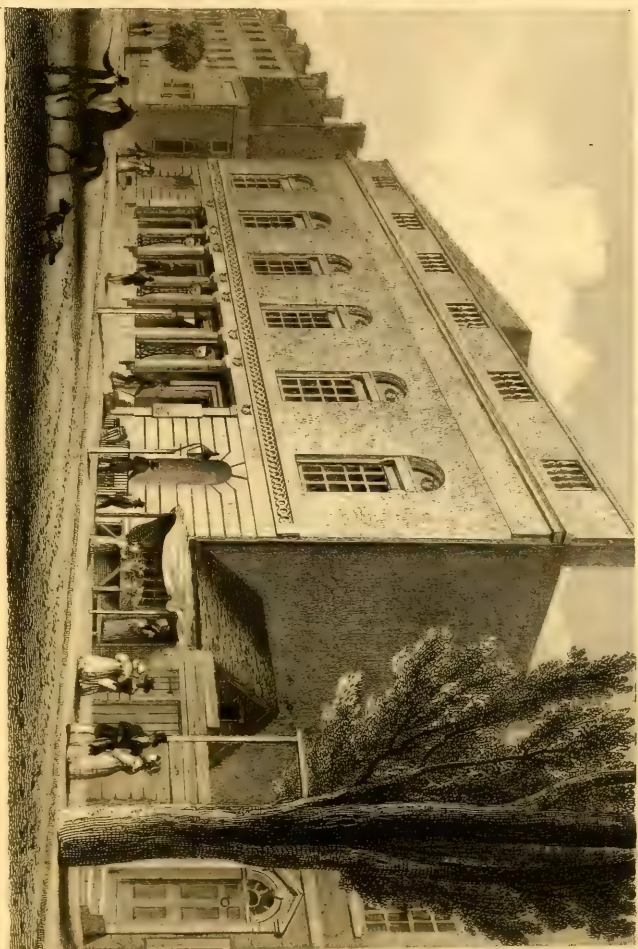
more justly proud than those at Fair Mount, by which the city is supplied with water of the best quality, and in the greatest plenty. Fair Mount is in the rear of the city, upon the bank of the Schuylkill, the neighbourhood of which affords some romantic scenery. The reservoirs are situated on the top of a hill rising from the river, a part of it perpendicular rock, to the height of 100 feet. The ascent from the river to the reservoirs is by a flight of substantial wooden steps, with resting places, over one of which is a temple. The reservoirs, which are surrounded with paling, outside of which is a gravelled walk, contain upwards of twelve millions of gallons, supplying the city through between fifteen and twenty miles of pipes. The water was formerly forced to the reservoirs by steam, which is no longer used; it is now raised by machinery propelled by the Schuylkill. The machinery is simple, and is turned by large water wheels, of which there are five, one of them of iron, and twenty-four tons in weight. If all are in motion, they will raise seven millions of gallons in twenty-four hours. To turn them, the Schuylkill has been dammed its whole breadth, by which the water is thrown back into a reservoir lock, whence it is admitted as required to operate upon the wheels, and is discharged into the river below the dam. The whole expense of these works, including the cost of works abandoned, was 1,783,000 dollars. The water thus circulated through the city, is not only sufficient for every family, but is used to wash the streets. It is of immense service in case of fire, as it is only necessary to screw the hose to hydrants, which are placed at convenient distances, to secure a constant stream of sufficient force to reach any ordinary height.—There is a navy yard on the Delaware.

The New Penitentiary, situated on elevated ground near the city, and nearly completed, is designed to carry the principle of solitary confinement completely into effect. Ten acres of land are occupied for the purpose, forming a square of 650 feet each way, and enclosed by massive walls of granite thirty-five feet high, with towers and battlements. The prison is in the centre of the square, and is admirably calculated for the purposes for which it was designed. The expense already incurred in its erection is 300,000 dollars.

The banks of the Schuylkill near Philadelphia contain many elegant country seats, and several public buildings. Among the private residences, none are perhaps more justly admired than that of Henry Pratt, Esq. on Lemon Hill. The mansion-house is situated on the eastern bank of the river, and directly above the Fair Mount Water Works, about a mile from the city. Connected with the mansion are gardens of an extensive kind, laid out in a style of much elegance and taste, to which respectable citizens and strangers have free access, and a ride to them is among the various pleasant excursions in the vicinity of the city.

Pittsburg, in the western part of the state, is very advantageously situated, on a plain between the Alleghany and Monongahela rivers, at the point where they unite

to form the Ohio. By means of the Alleghany river and its branches, Pittsburg has a water communication with the western part of New York; by the Monongahela and a good turnpike-road, it is connected with Baltimore; and by the Ohio it has an easy intercourse with the western states. It is also connected with Philadelphia by an excellent turnpike-road. These advantages have made Pittsburg the centre of a great trade, and it is estimated that merchandise to the value of 20,000,000 dollars annually passes through the city. The immense supply of coal in the neighbouring country has given rise to numerous and extensive manufacturing establishments. The population in 1820 was 7248. Harrisburg, the seat of government, is regularly laid out on the east bank of the Susquehanna, ninety-seven miles west-north-west of Philadelphia. Lancaster, sixty-two miles west of Philadelphia, is advantageously situated in the midst of a fertile and highly cultivated country. Easton is pleasantly situated on the Delaware, at the mouth of the Lehigh, fifty-six miles north of Philadelphia. Reading is a flourishing town on the Schuylkill, fifty-one miles north-west of Philadelphia, inhabited chiefly by Germans, and famous for the manufacture of hats. Wilkesbarre is on the south-east side of the Susquehanna, 119 miles north-west of Philadelphia. Canonsburg, the seat of Jefferson College, is eighteen miles south-west of Pittsburg. Meadville, the seat of Alleghany College, is in the north-west part of the state, on French Creek, about forty miles from Lake Erie. Carlisle is sixteen miles west of Harrisburg. Bethlehem, a Moravian settlement, is on the Lehigh, twelve miles south-west of Easton, and fifty-three north of Philadelphia.

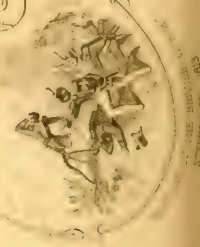




UNIVERSITY COLLEGE, DUBLIN.



THE GREAT BRITISH MUSEUM.



THE MUSEUM OF NATURAL HISTORY.



CHAPTER III.

OHIO—INDIANA—ILLINOIS—MISSOURI.

OHIO.

THIS interesting and important state is bounded by Lake Erie and Michigan territory on the north; by Pennsylvania and by the Ohio on the south; and a line separates it from Virginia and Kentucky on the south-east, and from Indiana on the west. Extending from north latitude $38^{\circ} 30'$ to 42° , and from longitude $83^{\circ} 35'$ to $84^{\circ} 47'$ west, its area is 40,000 square miles. The greatest breadth of Ohio is within a fraction of 220 miles; mean breadth about 182 miles.

This state occupies about one-third of the plane which declines from Pennsylvania to the Mississippi. Except along the deep vales of the Ohio, and those of other streams near their efflux into that recipient, the climate is as uniform as the surface, and considerably more severe in the winter season than in corresponding latitudes on the Atlantic.

"In a state of nature," says Darby, "Ohio was, with the exception of some central prairies, covered with a dense forest, to which the fertility of the soil gave a stupendous developement. The size, majesty, and generic and specific variety of the trees of the Ohio basin has been a just theme of admiration, but I am inclined to consider the picture over-coloured. I spent my early years in the Ohio valley and Mississippi basin alternately, and could never observe any single species of tree common to both, say to Ohio and Louisiana as extremes, which did not reach a height and mass greater in the lower climate of Louisiana." In cultivated vegetables, Ohio is peculiarly productive. Indian corn, wheat, rye, oats, barley, tobacco, and orchard fruits, are staples. Meadows and gardens, where due attention is paid to their improvement, yield abundantly. Of metals, iron is the only ore found in great quantity. Coal of the bituminous species exists in extensive strata along the Ohio and some of its confluent streams, and no doubt underlies other parts of the state, though in a manner too level to be detected, except by artificial means.

The state of Ohio has undertaken the construction of canals, as public works, on a very liberal scale. One of these is the Ohio State Canal, from Cleaveland, on Lake Erie, to the Ohio, at the mouth of the Scioto; lockage, 1,185 feet; length of the main line, 306 miles; feeders, fifteen miles; total, 322 miles. Estimated expense, 2,801,000 dollars. The route is from Portsmouth, on the Ohio, where it is 474 feet above tide

level, and ninety-four below Lake Erie,) up the valley of the Scioto, to Pikestown; thence crossing the river to near Chillicothe; thence again crossing the river, it continues along the eastern bank to Big Belly Creek, where it receives a feeder, ten miles long, from the Scioto at Columbus; it then passes up the valley of Walnut Creek to the Licking and Walnut Creek summit, between the head waters of those streams. From the summit it continues down the valley of Licking Creek to Rocky Fork, and thence across the valley to the Tomaka, and down that stream to near its junction with the Muskingum. From this point an ascent commences, and the line passes up the Muskingum Valley to White Woman's Creek; crossing this, it proceeds up the valley of Tuscarawas Fork, first on the western, then on the eastern bank, to a point where its two head waters unite, near the south-west angle of Portage county. This is the centre of the Portage summit, extending ten miles. From the north of the Portage or Akron summit (499 feet above the Ohio at Portsmouth, 973 feet above the Atlantic, 405 above Lake Erie), it passes down the Cuyahoga Valley, first on the west, afterward on the east side of the river, to within six miles of its mouth at Cleveland, for which six miles the river channel with a towing-path is to be used.—Miami Canal, forty feet wide at the surface, and four feet in depth, from Cincinnati, on the Ohio, to the Maumee, near the head of Lake Erie, was commenced in 1825. Length of main line, 265 miles; feeders, twenty-five miles; total, 290; lockage, 889 feet; estimated expense, 2,929,957 dollars. The line from Cincinnati to Dayton was completed in 1831. This division embraces twenty-two locks, and length of canal sixty-five miles. The summit level, commencing eighteen miles north of Dayton extends sixty miles within a single lock. To aid the state in extending this canal to Lake Erie, there was assigned by congress, of the public lands which the same must pass through, a quantity equal to one-half of five sections in width, on each side of the canal between Dayton and the Maumee River at the mouth of the Auglaise, the United States reserving each alternate section; provided the works were commenced within five years from May, 1828, and finished within twenty; the canal to be a highway for the United States, free from toll.

The principal manufactures are flour and spirits, and woollen and cotton cloth, with family manufactures to a great amount. The number of steam-boats built is great. About 200 are now plying in the western valley. The principal exports are flour, pork, and tobacco; which are carried down the Ohio and Mississippi to New Orleans. Foreign goods are received from the same place by the steam-boats, and from Philadelphia and Baltimore, across the Allegany Mountains.

Education is pretty generally extended through this state. There is a university at Athens, called the Ohio University; and another at Oxford, called the Miami University. One section, or the thirty-sixth part of every township, has been granted by the government of the United States for the support of schools. There are many

incorporated academies in different parts of the state, and a college established at Cincinnati.

The Presbyterians in this state have 346 churches, 192 ministers, 11 licentiates, and 22,150 communicants; the Baptists, 14 associations, 240 churches, 140 ministers, and 8,801 communicants; the Methodists, 91 preachers, and 36,064 members; the Lutherans, 37 ministers, and 8,706 communicants; the Associate Presbyterians, 65 congregations, 20 ministers, and 4,225 communicants; the German Reformed, 82 congregations, and 3,750 communicants; the Episcopalians, 16 ministers; the New Jerusalem Church, 4 societies; there are also a considerable number of Friends and Roman Catholics, and some Universalists, Unitarians, and Shakers.

Population of the Counties and County Towns.

Counties.	Population, 1830.	Square Miles.	County Towns.	Population.	Distance. C ^a W ^b	
Adams, S.	12,278	550	West Union	429	101	460
Allen, W. M.	578	542	Wapaghkonetta		110	507
Ash-ta-bu-la, N. E.	14,584	705	Jefferson	270	191	325
Athens, S. E.	9,763	744	Athens	729	73	344
Belmont, E.	28,412	586	St. Clairsville	789	124	275
Brown, S.	17,867	492	Georgetown	325	104	480
Butler, S. W.	27,044	486	Hamilton	1,097	101	488
Champaign, W. M.	12,130	417	Urbana	1,102	50	447
Clark, S. W. M.	13,074	412	Springfield	1,080	43	437
Clermont, S. W.	20,466	515	Batavia	426	109	476
Clinton, S. M.	12,292	400	Wilming-ton	607	67	444
Columbiana, E.	35,508	865	New Lisbon	1,138	152	282
Coschocton, E. M.	11,162	562	Coshocton	333	84	336
Crawford, N. M.	4,778	584	Bucyrus	298	69	409
Cuyahoga, N. E.	10,360	475	Cleveland	1,076	138	354
Dark, W.	6,203	660	Greenville	160	103	501
Delaware, M.	11,523	610	Delaware	532	23	419
Fairfield, M.	24,788	540	Lancaster	1,540	28	372
Fayette, S. M.	8,180	415	Washington	300	45	422
Franklin, M.	14,766	520	Columbus	2,437		396
Gallia, S.	9,733	495	Gallipoli-s	755	108	362
Geauga, N. E.	15,813	600	Chardon, town-ship	881	157	332
Green, S. W. M.	15,084	416	Xenia	919	57	453
Guernsey, E. M.	18,036	621	Cambridge	518	83	314
Hardin, W. M.		500	Hardy		66	436
Hamilton, S. W.	52,321	400	Cincinnati	24,831	112	497
Hancock, N. W. M.	813	575	Findlay	52	114	502
Harrison, E.	20,920	450	Cadiz	820	124	278
Henry, N. W.	260	474	Damascus		161	485
Highland, S. M.	16,347	555	Hillsborough	564	74	441
Hocking, S. M.	4,008	432	Logan	97	47	370
Holmes, M.	9,133	400	Millersburg	319	80	341
Huron, N.	13,345	810	Norwalk	310	113	399
Jackson, S.	5,974	492	Jackson	329	74	387
Jefferson, E.	22,489	400	Sten-ben-ville	2,937	149	260
Knox, M.	17,124	610	Mount Vernon	1,021	45	375
Lawrence, S.	5,366	426	Burlington	149	135	405
Licking, M.	20,864	665	Newark	999	34	362
Lorain, N.	5,696	555	Elyria	668	130	377
Logan, W. M.	6,442	425	Belle Fontaine	266	62	458
Madison, M.	6,190	448	London	249	27	423

^a From Columbus.

^b From Washington.

TOPOGRAPHY OF

Counties.	Population, 1830.	Square Miles.	County Towns.	Population.	Distance. C. c | W. d	
Marion, M.	6,558	527	Marion.....	287	47	416
Medina, N. E. M.	7,560	473	Medina, township	622	111	357
Meigs, S. E.	6,169	405	Chester	164	94	343
Mercer, W.	1,110	570	St. Mary's	92	111	508
Miami, W. M.	12,806	444	Troy	504	78	474
Mouroe, S. E.	8,770	563	Woodsfield	157	140	294
Montgomery, W. M.	24,252	450	Dayton	2,965	66	462
Morgan, S. E.	11,796	500	Mc Connelsville	267	70	340
Muskingum, M.	29,325	664	Zanesville	3,094	59	336
Paulding, N. W.	160	432	.....	.....	.....	.....
Perry, S. M.	14,018	402	Somerset	576	46	354
Pickaway, M.	15,935	495	Circleville	1,136	26	394
Pike, S.	6,024	414	Piketon	271	65	409
Portage, N. E.	18,827	752	Ravenna, township	806	127	320
Preble, W.	16,255	432	Eaton	511	92	488
Putnam, N. M.	230	576	Sugar Grove .....	.....	148	538
Richland, N. M.	24,007	900	Mansfield	840	71	380
Ross, S. M.	24,053	672	Chillicothe	2,846	45	404
Sandusky, N.	2,851	656	Lower Sandusky	351	103	428
Scioto, S.	8,730	581	Portsmouth	1,064	91	421
Seneca, N. M.	5,148	546	Tiffin	248	85	431
Shelby, W. M.	3,671	418	Sydney	240	86	482
Stark, E. M.	26,784	780	Canton	1,257	116	319
Trumbull, N. E.	26,154	875	Warren	510	157	297
Tuscarawas, E. M.	14,298	654	New Philadelphia	410	107	314
Union, M.	3,192	430	Marysville	142	37	433
Van Wert, N. W.	49	432	Willshire .....	.....	146	533
Warren, S. W. M.	21,493	400	Lebanon	1,157	83	468
Washington, S. E.	11,731	670	Marietta	1,207	106	304
Wayne, N. M.	23,344	660	Wooster	977	86	347
Williams, N. W.	377	600	Defiance	52	175	511
Wood, N. W.	1,095	744	Perrysburg	182	135	460
Total.	937,679	40,150				

Population of Ohio at Different Periods.

Population.	Increase.
In 1790, about 3,000	
1800, 45,363	From 1790 to 1800, 43,363
1810, 230,760	1800 1810, 195,395
1820, 581,434	1810 1820, 350,674
1830, 937,637	1820 1830, 356,203

Cincinnati.

Population.
In 1800, 750
1810, 2,540
1820, 9,642
1826, 16,230
1830, 24,831
1831, 28,014

Cincinnati, the largest town, is near the south-west corner of the state, on the Ohio, twenty miles above the mouth of the Great Miami. This town was first laid out in 1789, and began to flourish after the year 1794, since which time its growth in population, wealth, and trade, has been exceedingly rapid. It is the emporium of the western country, and, next to New Orleans, much the largest town in the United States west of the Alleghany Mountains. It is advantageously and pleasantly situated. It stands partly on the first and partly on the second bank of the river, the upper part being elevated fifty or sixty feet above the lower. The central

^c From Columbus.^d From Washington.

part of the town is very compact, and a great proportion of the houses are handsomely built of brick. The principal public buildings and institutions in 1829 were a courthouse, a jail, the medical college, the Cincinnati College, an hospital, a museum, a city library, the apprentices' library, three market-houses, five insurance companies, twenty-three places of public worship, five classical schools, and forty-seven common schools. There were published, at the same period, two daily newspapers, two semi-weekly, and five weekly, besides other periodicals. In 1826, there belonged to the city twenty-eight clergymen, thirty-four attorneys, and thirty-five physicians. The number of students in the medical college, in 1825, was eighty-two. The Cincinnati College was incorporated in 1819. Cincinnati is a place of great trade and extensive manufactures. The exports, of which the most considerable articles are flour and pork, amounted, in 1826, to 1,063,560 dollars; and the imports, in the same year, to 2,528,590 dollars, a considerable portion of the imports being brought here for re-exportation. There are between thirty and forty manufacturing establishments, some of which are on a very extensive scale; and their works are, to a great extent, moved by steam-power. The whole value of the manufactures, in all the departments, was estimated, in 1828, at 1,850,000 dollars. The markets of Cincinnati are abundantly supplied with various kinds of provisions, at a low price.

Chillicothe is on the west bank of the Scioto, forty-five miles, in a direct line, from its mouth. It has many valuable mills and manufactories, and is the second town in the state. Columbus, the seat of government, is regularly laid out on a pleasant rising ground on the east bank of the Scioto, just below the confluence of Whetstone, forty-five miles north of Chillicothe. Marietta, the oldest town in the state, is on the Ohio, at the mouth of the Muskingum. Its situation is unfortunate, parts of the town being liable to an annual inundation, an inconvenience which has much retarded its growth. Zanesville is on the Muskingum, sixty miles north of Marietta. Steubenville is on the Ohio, near the Pennsylvania boundary. Athens is on the Hockhocking, about fifty miles east of Chillicothe. Cleveland is on Lake Erie, at the mouth of the Cayahogo.

INDIANA

Is bounded by the Lake and territory of Michigan on the north; by Ohio on the east; by Kentucky, from which it is separated by the River Ohio, on the south; and by Illinois on the west. It extends from latitude $37^{\circ} 48'$ to $41^{\circ} 36'$; and longitude $41^{\circ} 42'$ to $87^{\circ} 49'$. Indiana is in length 264 miles; in mean width 124; and its area is 34,000 square miles.

There are no mountains in Indiana; the country, however, is more hilly than the state of Illinois, particularly towards the Ohio. A range of hills, called the Knobs, extends from the falls of the Ohio to the Wabash, in a south-west direction, in

many places producing a broken and uneven surface. North of these hills lie the flat woods, seventy miles wide. Bordering on all the principal streams, except the Ohio, there are stripes of bottom and prairie land, both together from three to six miles in width. Between the Wabash and Lake Michigan the country is mostly champaign, abounding alternately with woodlands, prairies, lakes, and swamps. A range of hills runs parallel with the Ohio, from the mouth of the great Miami to Blue River, alternately approaching to within a few rods of the river, and receding to the distance of two miles. Immediately below Blue River the hills disappear, and there is presented to the view an immense tract of level land, covered with a heavy growth of timber. North of the Wabash, between Tippecanoe and Ouitanan, the banks of the streams are high, abrupt, and broken, and the land, except the prairies, is well timbered. Between the Plein and Theakiki the country is flat, wet, and swampy, and interspersed with prairies of an inferior quality. The sources of rivers are generally in swamps or lakes, and the country around them is low, and too wet for cultivation. The soil of the prairies is often as deep and fertile as the best bottoms. Those bordering on the Wabash are particularly rich. Wells have been dug in them, where the vegetable soil was twenty-two feet deep, under which was a stratum of fine white sand. The ordinary depth is from two to five feet.

The climate is generally healthy and pleasant, resembling that of Ohio. The Wabash is frozen over in the winter, so that it may be safely crossed on the ice. More than half the land in this state remains in the possession of the Indians. Its principal productions are wheat, Indian corn, rye, oats, barley, buckwheat, potatoes, pulse, beef, pork, butter, whiskey, and peach brandy. Not far from Big Blue River there is a large cave, the entrance of which is on the side of a hill, about 400 feet high. Here are found great quantities of sulphate of magnesia, or Epsom salt, of nitre, &c. The earth most strongly impregnated yields twenty or twenty-five pounds of salt to a bushel.

When Indiana was admitted into the Union, in 1816, congress granted one section, or one thirty-sixth part of each township, for the support of schools. One entire township, or 23,040 acres, said to be worth, on an average, ten dollars an acre, was also given for the support of a college. The college is situated at Vincennes, and a large brick building is already erected for its use. The constitution of Indiana contains the following important provision respecting general education: "It shall be the duty of the general assembly, as soon as circumstances will permit, to provide by law for a general system of education, ascending in a regular gradation from township schools to a state university, wherein tuition shall be gratis, and equally open to all." The cause of popular education has not, however, as yet received that attention which this provision of the constitution would seem to warrant, or which its importance demands; it is, nevertheless, advancing, and excites increased interest.

Several respectable public and private seminaries are supported in different parts of the state.

The Baptists in this state have 11 associations, 181 churches, 127 ministers, and 6,513 communicants; the Methodists, 34 preachers, and 13,794 members; the Presbyterians, about 50 churches, and 20 ministers.

Population of the Counties and County Towns.

Counties.	Population.	County Towns.	Distance.	
			Ind ^a	W. ^f
Allen, N. E.	1,000	Foot Wayne	141	561
Bartholomew, M.	5,480	Columbus	41	598
Boon, S. W. M.	622	Thornstown	62	620
Carroll	1,614	Delphi	88	661
Cass	1,154	Logansport	113	642
Clark, S.	10,719	Charlestown	105	583
Clay, W.	1,616	Bowling-Green	69	641
Clinton	1,423	Frankfort		
Crawford, S.	3,184	Fredonia	122	632
Daviess, S. W. M.	4,512	Washington	106	673
Dearborn, S. E.	14,573	Lawrenceburg	98	523
Decatur, S. E. M.	5,854	Greensburgh	55	559
Delaware, E. M.	2,372	Muncytown	59	546
Dubois, S. W. M.	1,774	Portersville	124	662
Elkhart	935	Pulaski		
Fayette, E. M.	9,112	Connersville	68	527
Floyd, S. E.	6,363	New Albany	121	594
Fountain, W.	7,644	Covington	81	654
Franklin, S. E.	10,199	Brookville	70	524
Gibson, S. W.	5,417	Princeton	141	702
Greene, S. W. N.	4,253	Bloomfield	76	648
Hamilton, M.	1,750	Noblesville	22	580
Hancock, M.	1,569	Greenfield	21	552
Harrison, S. E.	10,288	Corydon	124	614
Hendricks, M.	3,967	Danville	20	593
Henry, E. M.	6,498	New Castle	49	536
Jackson, S. M.	4,894	Brownstown	69	603
Jefferson, S. E.	11,465	Madison	85	576
Jennings, S. E. M.	3,950	Vernon	64	565
Johnson, M.	4,139	Franklin	20	593
Knox, W.	6,557	Vincennes	126	693
Lawrence, S. M.	9,237	Bedford	73	633
Madison, M.	2,442	Andersontown	41	561
Marion, M.	7,181	INDIANAPOLIS		573
Martin, S. M.	2,010	Mount Pleasant	121	659
Monroe, S. M.	6,578	Bloomington	51	627
Montgomery, W. M.	7,386	Crawfordsville	44	617
Morgan, M.	5,579	Martinsville	30	603
Orange, S. M.	7,909	Paoli	94	626
Owen, W. M.	4,060	Spencer	52	624
Parke, W.	7,534	Rockville	68	640
Perry, S.	3,378	Rome	143	655
Pike, S. W.	2,464	Petersburgh	119	681
Posey, S. W.	6,883	Mount Vernon	187	748
Putnam, W. M.	8,195	Green Castle	42	614
Randolph, E.	3,912	Winchester	97	523
Ripley, S. E. M.	3,957	Versailles	79	551
Rush, E. M.	9,918	Rushville	40	553
St. Joseph, N.	287	Tarecoopy		

^a From Indianapolis.

^f From Washington.

TOPOGRAPHY OF

Counties.	Population.	County Towns.	Distance.	
			Ind. ^a	W. ^b
Scott, S. E.	3,097	New Lexington	89	594
Shelby, M.	6,294	Shelbyville	30	575
Spencer, S.	3,187	Rockport	167	692
Sullivan, W.	4,696	Merom	115	688
Switzerland, S. . . .	7,111	Vevay	105	556
Tippecanoe, N. W. M.	7,167	Lafayette	70	643
Union, E.	7,957	Liberty	77	650
Vanderburgh, S. W.	2,610	Evansville	170	728
Vermillion, W. . . .	5,706	Newport	86	658
Vigo, W.	5,737	Terre Haute	83	655
Wabash, N. W. M. . .		Elk Heart Plain	196	616
Warren, W.	2,854	Williamsport		
Warrick, S. W. . . .	2,937	Boonville	187	712
Washington, S. M. . .	13,072	Salem	91	613
Wayne, E.	18,587	Centreville	63	510
Total	341,582			

Population at different Periods.

Population.			Increase.	Slaves.
In 1800,	5,641			
1810,	24,520	From 1800 to 1810,	18,879	133
1820,	147,178	1810 1820,	122,658	237
1830,	341,582	1820 1830.	194,404	190
				0

Indiana was admitted into the Union in 1816, and contained, in 1815, by enumeration, 68,780 inhabitants. This state has had a rapid increase of inhabitants; yet the greater part of the land within its limits still belongs to the United States. It contains no large towns.

Vincennes, the largest town in the state, is on the east bank of the Wabash, sixty-five miles from its junction with the Ohio in a direct line, but nearly 120 by the course of the river. It was settled about a century ago by the French from Lower Canada, many of whom intermarried with the Indians, and gradually approximated to the savage state; but within a few years American emigrants have flocked thither, and the society is rapidly improving. Corydon, in Harrison county, on Indian creek, and about twenty-five miles west of Louisville, was, until lately, the seat of government. This settlement commenced in 1809, and is rapidly increasing. Vevay, in Switzerland county, is pleasantly situated on the second bank of the Ohio, twenty-five feet above high-water mark. The inhabitants are emigrants from the Pays de Vaud, in Switzerland. In 1814, the site of the town was a forest, but it is now a flourishing settlement. The country in the rear is broken and fertile; and, half a mile below the village are the Swiss vineyards, where the culture of the vine has been successfully

^a From Indianapolis.^b From Washington.

introduced. Brookville, pleasantly situated in the forks of Whitewater River, is a flourishing town, and will probably be the centre of trade for an extensive and fertile portion of the state. Jeffersonville, on the Ohio, a little above the falls, and nearly opposite Louisville, promises to become a place of considerable business. Princeton, Harmony, Evansville, Troy, Terre Haute, Madison, Lawrenceburg, and Fort Wayne, are all thriving settlements. The seat of government has been lately fixed at Indianapolis, near the centre of the state.

ILLINOIS.

This state has the Trans-Michigan territory for its northern boundary; Lake Michigan, Indiana, and Kentucky on the south-east; and the Mississippi on the west and south-west. Length from the junction of the Mississippi and Ohio, north latitude 37° , to the northern boundary of the state, north latitude $42^{\circ} 30'$, 382 miles; mean breadth, 154 miles; area, 58,900 square miles, equal to 35,696,000 statute acres.

Illinois is, after Virginia, Georgia, and Missouri, the largest in point of extent, and in general fertility the first state of the Union. Extending over a zone of $5\frac{1}{2}^{\circ}$ of latitude, it embraces the greatest extent north and south; Georgia and New York only embracing each $4\frac{1}{2}^{\circ}$. Illinois is, comparatively speaking, a very gently inclined plain. It is a country of so very little difference of level, that it may be doubted whether the general level varies 600 feet. The surface of it is singular, and very picturesque. It is nearly all prairie, with a few groves of timber widely separated from each other, and deeply indented with ravines, whose sides slope off into low round hills, as if an exact plain had been divided into an infinite number of globular eminences. With all its uniformity of surface, the climate at the extremes differs very materially.

Illinois, in regard to soil, resembles Ohio and Indiana, but with less of flat and irreclaimable land than either, and more generally of rich plain than both the latter taken together. The surface is rolling on the south and west, and level on the north and east. The staple productions of Illinois are Indian corn, wheat, potatoes, beef, pork, horses, tobacco, and lead. The castor bean is raised, and oil is manufactured from it, but not in large quantities. Good cotton is produced for home consumption, and is manufactured extensively in the families of the farmers, into coarse fabrics, for domestic uses. Hemp, flax, and silk-worms succeed well. Apples, peaches, pears, plums, cherries, grapes, gooseberries, and currants, arrive at great perfection. The wild fruits are grapes, plums, cherries, gooseberries, mulberries, crab-apples, persimmons, blackberries, raspberries, and strawberries. In the timbered parts of the country the trees exhibit a luxuriant growth, and are often seen of an enormous size.

The whole of this country abounds in coal. Salt is manufactured extensively in the neighbourhood of Shawneetown, in Gallatin county; salt springs have been discovered in other places, but salt has not yet been manufactured from them. Sulphur springs, chalybeate springs, and very strong impregnations of pure sulphate of magnesia, abound in different parts. In the southern part of the state a number of sections of land have been reserved on account of the silver ore which they are supposed to contain. The lead mines in the vicinity of Galena, are very extensive and valuable. The mineral has been found in every portion of a tract of more than fifty miles in extent in every direction, and is supposed to occupy a territory of more than twice that size. The ore lies in beds, or horizontal strata, varying in thickness from one inch to several feet. It yields seventy-five per cent. of pure lead.

A canal has been projected, though not yet commenced, to unite Lake Michigan with the river Illinois, and the general government has made a donation of land in aid of the design. The length will be about seventy miles; and the cost is estimated at 800,000 dollars. Labourers are now employed in the construction of that part of the national road which extends from the town of Vandalia to the eastern boundary of Indiana, near Terre Haute. The length of this part is ninety miles, and the road is so straight that its length is not so much as a mile greater than the distance by a right line between the two extreme points.

Land to the amount of 998,374 acres has been given for the support of schools; but no system of general education has yet been organized. The following particulars are extracted from an "Appeal in behalf of the Illinois College." "It appears that in the fifty-one counties, containing a population of 157,575 souls, there are 550 common schools, and fifty-one Sunday-schools. From the census of 1830 it appeared that the children in the state were 47,895; an examination shows that the whole number of children in the schools, at one season or other, is 12,290. Large numbers of the men and women throughout the state, and a great proportion of the children, are wholly unable to read."

The Baptists in this state have 6 associations, 80 churches, 69 ministers, and 2,432 communicants; the Methodists, 45 preachers and 8,859 members; the Presbyterians, 24 churches, 13 ministers, and 492 communicants.

Population of the Counties and County Towns.

Counties.	Population.	County Towns.	Distance.	
			V. ¹	W. ²
Adams, w.	2,186	Quincy	193	974
Alexander, s.	1,390	America	181	850
Bond, w. m.	3,124	Greenville	20	801
Calhoun, w.	1,090	Gilead	126	907
Clark, e.	3,940	Clark C. H.	86	696
Clay, e. m.	755	Maysville	46	740
Clinton, s. m.	2,330	Carlyle	30	802
Crawford, e.	3,113	Palestine	118	718
Edgar, e.	4,071	Paris	106	675
Edwards e.	1,649	Albion	92	733
Fayette, m.	2,704	VANDALIA		781
Franklin, s.	4,081	Frankfort	102	808
Fulton, n. m. }		Fulton C. H.	133	854
Henry, n. }	2,156	Middletown		
Knox, n. m. }		Knox C. H.	188	877
Gallatin, s. e.	7,407	Equality	137	773
Green, w.	7,664	Carrollton	106	887
Hamilton, s. e.	2,620	McLeanborough	93	773
Hancock, w.	484	Venus	133	914
Jackson, s. w.	1,827	Brownsville	127	833
Jefferson, s. m.	2,555	Mount Vernon	65	801
Jo-Davies, n. w.	2,111	Galena	326	990
Johnson, s.	1,596	Vienna	167	817
Lawrence, e.	3,661	Lawrenceville	84	702
Macaupin, m.	1,989	Carlinville	95	861
McLean,		Bloomington		
Macon, w. m.	1,122	Decatur	70	771
Madison, w.	6,229	Edwardsville	55	830
Marion, s. m.	2,021	Salem	26	777
Mercer, n. w.	26			
Monroe, w.	2,119	Waterloo	99	890
Montgomery, m.	2,950	Hillsborough	28	809
Morgan, w. m.	12,709	Jacksonville	115	837
Macdonough, w. m. }		Macomb		
Schuyler, w. m. }	2,050	Rushville	172	894
Peoria, n. m. }		Peoria	43	807
Putnam, n. }	1,309	Hennepin		
Perry, s. m.	1,215	Pinckneyville	129	842
Pike, w.	2,393	Atlas	148	929
Pope, s. e.	3,323	Golconda	160	791
Randolph, s. w.	4,436	Kaskaskia	95	867
St. Clair, w.	7,092	Belleville	71	843
Sangamon, m.	12,960	Springfield	79	801
Shelby, m.	2,973	Shelbyville	40	741
Tazewell, m.	4,716	Mackinaw	149	790
Union, s. w.	3,239	Jonesborough	154	830
Vermillion, e.	5,836	Danville	150	683
Wabash, e.	2,709	Mount Carmel	109	716
Warren, n. w.	307	Warren		
Washington, s. m.	1,674	Nashville		
Wayne, s. e. m.	2,562	Fairfield	69	756
White, s. e.	6,091	Carmi	94	748
Total.	157,575, of whom 746 are slaves.			

¹ From Vandalia.² From Washington.

Population at different Periods.

Population.		Increase.		Slaves.
In 1810,	12,282			168
1820,	55,211	From 1810 to 1820,	42,929	917
1830,	157,575	1820 1830,	102,364	746

Illinois was admitted into the Union in 1818, and contained that year, by enumeration 35,220 inhabitants.

Kaskaskia, lately the seat of government, is on the right bank of the Kaskaskia river, eleven miles from its mouth. It contains a land office, a printing office, and about 160 houses, scattered over an extensive plain. The town was settled upwards of 100 years ago by emigrants from Lower Canada, and about one half of the inhabitants are French. The surrounding country is under good cultivation. Cahokia is a French settlement, on the Mississippi, fifty-two miles north-north-west of Kaskaskia, and five miles below St. Louis. Shawneetown is on the north bank of the Ohio, twelve miles below the mouth of the Wabash, and twelve miles east of the salt works belonging to the state on Saline creek. The inhabitants are supported principally by the profits of the salt trade. Edwardsville is a flourishing town on Cahokia river, twenty-two miles north-east of St. Louis. Vandalia, fifty miles north-east of Edwardsville, is now the seat of government.

MISSOURI.

This was the last state admitted into the union. It is bounded on the west and north by the unappropriated territory of the United States; on the east by the Mississippi, which divides it from Illinois and Tennessee; and on the south by the Arkansas territory. It extends from longitude 89° to 94° 10', and from latitude 36° to 40° 36'. Mean length from north to south 280 miles; area rather exceeding 63,000 square miles, or 40,320,000 acres; the mean width is 225 miles.

Though, with the exception of the alluvial bottoms, Missouri is rolling or hilly, yet no part rises to an elevation deserving the name of a mountain. A chain of hills commences south-east from the mouth of Osage river, and stretching south-west, is the beginning of the Ozark or Maserne chain; but it remains humble until far within Arkansas. No other state of the Union, however, is so greatly diversified in respect to soil and external features. The prairie region, commencing in Ohio and Indiana, spreading into immense plains in Illinois, expands still more in western Missouri. To a civilized and commercial people rivers are of primary importance. The far greater part of fertile and easily cultivated soil is on the banks of rivers; where also rise the most extensive and wealthy cities. In this respect there is perhaps no equal section of the earth to compare with Missouri. The Mississippi sweeps along its eastern border 550 miles, receiving in its course the still mightier Missouri. The latter entering the western boundary traverses the state, receiving from each side tributaries which, if not contrasted with the stream into which they are poured, would

deserve the title of fine rivers. The Osage, rising in the angle between Arkansas and Kansas rivers, on the vast plains west from the state of Missouri, carries its very serpentine but navigable volume into Missouri river near the centre of the state. The Illinois and Ohio, though not within the state, are in a commercial point of view rivers of Missouri. The White river and the St. Francis rise in this state, and flowing southward, connect it with the Arkansas.

The soil is as varied as is the surface; every quality is found, from the most productive and exhaustless alluvion, to sterile clay or silicious sand. On the eastern border, and near the streams generally, a dense forest covered Missouri; although in some places naked prairie encroaches upon the streams. In general terms the south-east section is alluvial, and liable to a partial annual inundation; the south-western is mixed prairie and "Flint Hill" land. The northern section, west from the Mississippi, and north from the Missouri, says Mr. Flint, "is no where mountainous. It contains great tracts of alluvial and hilly prairies. It is for the most part a surface delightfully rolling and variegated. There is no part of the globe where greater extents of country can be traversed more easily, and in any direction, by carriages of any description, where there are no roads, and that is yet in a state of nature." These three portions have each their appropriate features, but are interspersed with minor tracts partaking of the general character of the others. According to Mr. Flint there is a specific difference between the alluvium of the two rivers Mississippi and Missouri; the bottoms of the Missouri being more loamy and sandy, and those of its rival more clayey, and yet more substantial. The whole state will, with no very great exceptions, support a dense population. Its geographical extent, and its very great diversity of soil, will admit a correspondent variety of vegetable production. Wheat and Indian corn have been from the first the staples, though in the south-east section cotton is produced. Agriculture in all its forms, either as an art or a science, is in its infancy in Missouri, as it may be considered to be in any newly settled country where nature has done too much.—Three winters in five the Mississippi becomes passable on the ice at St. Louis. In 1818, it was so for upwards of two months. Receding from the Atlantic, it is in this state that the frigid winds of the north-west are first experienced in all their force. The climate is, in brief, cold and windy, as well as dry and bracing. The successive years also vary exceedingly; and uncertain as are the revolutions in meteorology elsewhere, they are proverbially variable in the state of Missouri and the adjacent regions.

This state has become celebrated for immense deposits of lead ore, chiefly of galena. The principal lead region is in Washington county and the parts adjacent, extending about 30 by 15 miles. The centre of the district is about 70 miles south-west from St. Louis. The ore is found in imbedded masses, and evidently a deposit. None has yet been found *in situ*, though some of the diggings have reached

to 80 feet. Coal in immense strata also exists in Missouri, and at some future period must greatly exceed in value the lead mines; as in a country of intense winter and scarcity of wood, coal mines must be a resource of primary importance. Iron ore forms no inconsiderable part of many of the hills of Missouri; but as this invaluable mineral is found almost every where, its existence here, though highly advantageous, gives but little local preference.

The principal exports are lead and furs. A large capital is employed in the fur-trade with the Indians up the Missouri and Mississippi. St. Louis is the centre of this commerce. Boats are continually passing between St. Louis and New Orleans. Since the independence of Mexico, a considerable trade has been carried on with the interior provinces of that republic. In 1825, commissioners of the United States laid out a road through the wilderness, from Missouri to Mexico; and the Osages by treaty, in consideration of 800 dollars, granted the right of making and using the road through their lands.

St. Louis College, and another seminary, at a place called Bois Brulé Bottom, in the southern part of the state, both Catholic institutions, are the most considerable literary seminaries in Missouri. St. Louis College, pleasantly situated on the outside of the city of St. Louis, was founded in 1829. The building is of brick, fifty feet by forty, four stories high, including the basement; and the library contains about 1,200 volumes. There are five professors, and 125 pupils, partly from Catholic and partly from Protestant families, attending to different branches of English education and the elementary parts of classical learning. There are several convents in the state, to which young females are sent for education.

The Baptists in this state have nine associations, 111 churches, 67 ministers, and 3,955 communicants; the Methodists, 23 preachers, and 3,403 members; the Presbyterians, 17 churches, 10 ministers, and 605 communicants; the Roman Catholics, a considerable number of churches and priests; the Episcopalians, 3 ministers.

Population of the Counties and County Towns.

Counties.	Population.	County Towns.	Distance.	
			J. ¹	W. ^m .
Boone, M.	8,889	Columbia	56	891
Callaway, M.	6,102	Fulton	32	967
Cape Girardeau, S. E.	7,430	Jackson	208	856
Chariton, N. M.	1,776	Chariton	79	1031
Clay, N. W.	5,342	Liberty	190	1142
Cole, M.	3,006	JEFFERSON CITY		980
Cooper, M.	6,019	Booneville	51	1023
Crawford	1,709	Little Piney	98	989
Franklin, E. M.	3,484	Union	79	901
Gasconade, M.	1,548	Gasconade	47	939
Howard, M.	10,844	Fayette	65	1017

¹ From Jefferson City.

^m From Washington.

Counties.	Population.	County Towns.	Distance.	
			J. ^a	W. ^o
Jackson, w.	2,822	Independence	177	1129
Jefferson, E.	2,586	Herculanum	164	886
Lafayette, w.	2,921	Lexington	138	1090
Lincoln, E.	4,060	Troy	97	913
Madison	2,371	Fredericktown	170	894
Marion, N. E.	4,839	Palmyra	190	984
Monroe		Monroe, C. H.	129	998
Montgomery, E. M.	3,900	Lewistown	67	932
New Madrid, S. E.	2,351	New Madrid	278	892
Perry, E.	3,377	Perryville	187	882
Pike, N. E.	6,122	Bowling Green	132	948
Ralls, N. E.	4,346	New London	167	961
Randolph, N. M.	2,962	Randolph	96	1042
Ray, N.	2,657	Richmond	149	1101
St. Charles, E.	4,322	St. Charles	123	876
St. Françoise, S. E. M.	2,386	Farmington	152	912
St. Genevieve, E.	2,182	St. Genevieve	168	874
St. Louis, ^p E.	14,907	St. Louis	134	856
Saline, N. M.	2,893	Walnut Farm	85	1038
Scott, S. E.	2,136	Benton	236	861
Washington, E. M.	6,797	Potosi	127	915
Wayne	3,254	Greenville	200	908
Total	140,074, of whom 24,990 are slaves.			

Population at different Periods.

Population.	Increase.	Slaves.
In 1810, 19,833		3,011
1820, 66,556		
1824, 80,677	From 1810 to 1820, 46,753	10,222
1830, 140,074	1820 1830, 73,488	24,990

The situation of St. Louis is elevated, pleasant, and healthy. The ground on which it stands rises gradually from the first to the second bank of the Mississippi. Three streets run parallel with the river, and are intersected by others at right angles. The town extends along the river about two miles. The second bank of the river is about forty feet higher than the spot on which the town is chiefly built, and affords a fine view of the town and river. On this bank stand the fortifications, erected in early times for the defence of the place. They consist of several circular towers, twenty feet in diameter and fifteen in height, a small stockaded fort, and a stone breast-work. The courts are held in one of the buildings of the fort, and another is used for a prison. The town contains three houses of public worship, a land office, a brewery, two water-mills, one steam-mill, a museum, two banks, a theatre, and two printing-offices, from each of which is issued a weekly newspaper. The houses are mostly of wood, but many are built of stone and are white-washed; very few of them are handsome. Most of the houses are furnished with a large garden. St. Louis was settled in 1764. It is at present in a state of rapid improvement, fast

^a From Jefferson City.

^o From Washington.

^p Population of St. Louis, the largest town, in 1820, 4,598; and in 1830, 5,852.

increasing in population and trade. Its situation is advantageous and interesting, being more central with regard to the whole territory belonging to the United States, than any other considerable town. Uniting the advantages of the three great rivers, Mississippi, Missouri, and Illinois, with their numerous branches, and possessing unrivalled facilities for an extensive trade, it will probably become a large city, and be the centre of an extensive commerce. The country around and west of St. Louis, for the distance of fifteen miles, is an extended prairie of very luxuriant soil.^a

The other chief towns in Missouri are, Herculaneum, on the Mississippi, thirty miles below St. Louis; St. Genevieve, on the same river, sixty-four miles below St. Louis; St. Charles on the Missouri, twenty-five miles north of St. Louis; Cape Girardeau, on the Mississippi, sixty miles above the mouth of the Ohio; and New Madrid, on the Mississippi, sixty-five miles below the mouth of the Ohio. Jefferson, on the south side of the Missouri, near the mouth of Osage River, has recently been laid out as the seat of government. Franklin, in Boone's Lick settlement, about seventy-five miles above Jefferson, is a thriving town.

^a Steam-boat Navigation from St. Louis.—St. Louis is 1,200 miles by the course of the river above New Orleans. In the summer of 1831, there were six steam-boats regularly employed between St. Louis and New Orleans. A trip from one place to the other and back again usually occupies twenty-four days; the shortest time in which one was ever made was eighteen days. The usual fare for cabin passengers, descending, 20 dollars; ascending 25 dollars; for deck passengers, 5 dollars either way.* Freight per 100 lbs, descending, 37½ cents; ascending, 62½ cents. From St. Louis to Louisville, 630 miles: six boats regularly running, in 1831: usual time of a trip, eleven days; the passage one way being somewhat more than three days. Fare of cabin passengers, about ten or 15 dollars either way; deck passengers, 4 dollars; freight, about 25 cents per 100 lbs. One boat, also, ran regularly to Cincinnati, 150 miles above Louisville. From St. Louis to Fever River, about 480 miles: three steam-boats regularly employed in 1831: time occupied by a trip, about ten days. Fare for passengers, ascending, 15 dollars; descending, 9 dollars. The route of one of the boats occasionally extended to St. Peter's River, 400 miles further up. In 1831, two boats were employed in running from St. Louis up the Missouri to Franklin, 200 miles, and to Fort Leavenworth, 200 miles further. Freight to Franklin, 75 cents per 100 lbs. and to Fort Leavenworth, from 1 dollar 25 cents, to 1 dollar 50 cents; from Franklin, down, 25 cents per 100 lbs. From St. Louis to Pekin, on Illinois River, 180 miles: two or three boats regularly employed in 1831. Steam-boats come occasionally to St. Louis from Pittsburg and other places.

* The reader need hardly be reminded that alterations in the fares must have occurred since the date mentioned in the text

CHAPTER IV.

DELAWARE—MARYLAND—DISTRICT OF COLUMBIA—VIRGINIA—KENTUCKY—
NORTH CAROLINA—TENNESSEE.

DELAWARE.

With the exception of Rhode Island, this is the smallest state in the Union. It is bounded on the north by Pennsylvania; on the east by Delaware Bay and the Atlantic; and on the south and west by Maryland.^a Length 100 miles; mean width, twenty-one miles; and area 2,100 square miles.

Delaware is the least diversified in surface of any of the states. The more northern part is hilly and waving, but it becomes monotonous towards the Atlantic Ocean. The actual dividing line between the waters of the Delaware and the Chesapeake Bay is in Delaware; but so far from being a ridge, it is mostly an extended flat, from which the Pocomoke, Nanticoke, Choptank, Chester, and Sassafras Rivers ooze, rather than flow, into Chesapeake Bay, and a number of unimportant creeks flow into the Delaware. The soil, in some places excellent, is generally thin, and in many places marshy. The climate is more distinctly different, at the extremes, than could be expected from a difference of latitude of only $1^{\circ} 23'$, and no considerable difference of level. Fruits are abundant, and grain and meadow-grass are the general objects of agricultural pursuit. Wheat is the staple commodity, and Delaware is noted for its excellent flour. From the mean annual temperature of Baltimore, it is evident that cotton might be made a staple crop in Delaware, and on the eastern shore of Maryland. Little metallic wealth can be expected in a region so approaching to recent alluvium as Delaware.

The Delaware and Chesapeake Canal, which completes a water communication by sloops and steam-boats between Philadelphia and Baltimore, commences on the Delaware, about forty miles below Philadelphia, crosses the peninsula in a direction nearly west, and enters the tide waters of the Elk River, a tributary of the Chesapeake. It is about fourteen miles in length, sixty feet broad, and ten feet deep, with a rise of eight feet only above the tide to its summit level. The ample dimensions adapt it to the passage of the largest schooners of the Chesapeake and Delaware Bays, and the work is worthy of Philadelphia, in which the design was conceived and matured.

^a Longitude, $74^{\circ} 56'$ to $75^{\circ} 40'$; latitude, $38^{\circ} 29'$ to $39^{\circ} 47'$.

It presents the greatest excavation ever attempted in any country; and the drains constructed for the passage of the waste water are nearly equal in magnitude to the largest canal of New York. At its entrance into the Delaware has been constructed a spacious harbour, twenty feet deep at low water, capable of containing 200 vessels of a large class, and affording shelter against the dangers of the bay at every season of the year. The cost of the work is estimated at about 1,200,000 dollars. In its session of 1824-5, congress made a liberal subscription of 300,000 dollars to this truly national undertaking.

The Methodists in this state have 15 preachers and 12,304 members; the Presbyterians, 8 churches, 9 ministers, 1 licentiate, and 1,300 communicants; the Baptists, 9 churches, 9 ministers, and 520 communicants; the Episcopalians, 6 ministers.

Population of the Counties and County Towns.

Counties.	Population, 1820.	Population, 1830.	County Towns.	Distance. D. ^b | W. ^a	
Kent, M.	20,793	19,911	DOVER		114
New Castle, N.	27,899	29,710	{ Newcastle	42	103
Sussex, S.	24,057	27,118	{ Wilmington	47	108
			Georgetown	40	122
Total.	72,749	76,739, of whom 3,305 are slaves.			

Dover, a small town near the centre of the state, is the seat of government. Wilmington, the largest town, is situated between the Brandywine and Christiana creeks, two miles from the Delaware, and is celebrated for the number and importance of the manufactories in its vicinity, particularly the flour mills, which are the finest in the United States. Newcastle and Smyrna have some trade; and Lewistown is noted for salt works.

MARYLAND.

The ground plan (if we may be permitted the expression) of this state presents a very singular appearance, being completely, though irregularly, divided in its whole length by perhaps the most noble estuary in the world, Chesapeake Bay. The state is bounded on the north by Pennsylvania; on the east by Delaware and a portion of Virginia; on the south by the confluence of Chesapeake Bay, with the Atlantic; and on the west by the Potomac, which separates it from Virginia. It extends from longitude 75° 10' to 79° 20'; latitude 38° 03', and 39° 42' "The area of Maryland," says Mr. Darby, "is generally and greatly overrated. This exaggeration has arisen from its very irregular form, and from including the surface of Chesapeake Bay. I have taken some extra trouble to obtain the true area, and find that the land superficies is within an inconsiderable fraction of 10,000 square miles."

^b From Dover.

^a From Washington.

All those parts of Maryland east from Chesapeake, and west from that bay to the head of tides, may be considered as recent alluvium. Above tide water, the surface rises, though not very rapidly, into hills, which reach the foot of the mountains. The third or mountainous section constitutes the western part of the state. Much highly productive soil exists in each zone, but in general the intermediate vallies of the mountainous part contain the most fertile. The limestone tracts of Frederick and Washington exhibit a fertility not surpassed in the United States. The hilly or middle zone is very variable; and in a very limited extent are frequently found the extremes of sterility and fertility. The marine and river alluvial section, though not affording any surface equally productive with the calcareous parts of the western, is more uniform than the middle zone. The surface of the alluvial region, though not rising into hills of any considerable elevation, is far from being a dead plain. In a state of nature, Maryland was, with little exception, covered with a dense forest. The diversity of soil and elevation induces in Maryland an extended facility of vegetable production, by which the staples have been greatly multiplied. The whole arable surface of Frederick, Washington, and Allegany counties, may be regarded as lying more than 500 feet above the ocean. The Apalachian system of mountains forms the western part of Maryland, and gives origin to its most considerable river, the Potomac. The ridges rise into a barrier in no place less than 2,486 feet in height, and in many places exceeding 3,000 feet. This mountain chain raises a very formidable impediment to canal construction. An elevation of 2,486 feet in winter gives to the mountain ridges of Maryland a temperature similar to that on the Atlantic Ocean in latitude 45°.

The soil is generally a red clay or loam, and much of it is excellent, producing good crops of wheat, Indian corn, hemp, and flax. Here are also fine orchards, and apples, pears, peaches, plums, and cherries are abundant. Of peaches the inhabitants make large quantities of peach brandy; and of apples, apple brandy and cider. The forests abound in nut-bearing trees, which feed great numbers of swine. These run wild, and, when fattened, are killed, barrelled, and exported in great quantities. Beef and mutton are also plentiful. Some cotton for domestic use is raised in this state, but it is of inferior quality.

The most considerable export from this state is that of flour; and next to this is tobacco. The other exports are iron, lumber, Indian corn, pork, flaxseed, beans, &c. Its trade is principally carried on from Baltimore. This state abounds with mines of excellent iron ore, and has also some coal. Furnaces have been erected in various parts for the manufacture of pig and bar iron, hollow ware, cannon, stoves, &c. There are a number of glass works, paper mills, &c. Large quantities of rye are distilled into whiskey; but the most considerable manufacture is that of flour.

A turnpike has been completed from Baltimore to Cumberland, on the Potomac, a

distance of 135 miles. From Cumberland to Brownsville on the Monongahela, in Pennsylvania, there is now completed by the United States a free road of a most excellent construction. The distance is seventy-two miles, making the whole distance from Baltimore to Brownsville 207 miles. A turnpike extends from Baltimore in a north-west direction sixteen miles, to Reister town, and there divides; one branch turning more to the north, meets the Pennsylvania line in nineteen miles; the other in a west-north-west direction runs twenty-nine miles in Maryland. A turnpike road has been made from Baltimore by York and Pennsylvania, to the Susquehanna, by which large quantities of the produce of Pennsylvania are brought to that city. The Havre de Grace turnpike, leading to Philadelphia, and the Belle Air turnpike, have both been commenced, and are advancing to their completion.

Port Deposit Canal is a public work of Maryland, of ten miles in length, from Port Deposit, on the east bank of the Susquehanna, along a line of rapids northward to the boundary line of Maryland and Pennsylvania. At Little or Lower Falls, on the Potomac, three miles above Washington, is a canal two miles and a half long; difference of level thirty-seven feet one inch, overcome by four sets of locks of solid masonry, eighty feet long and twelve wide. At Great Falls, nine miles above, is a canal 1,200 yards long, lined with walls of stone; difference of level seventy-six feet nine inches, surmounted by five sets of locks of solid masonry, 100 feet long, and from ten to fourteen wide; lifts from ten to eighteen feet. Both here and at Little Falls, the canal dimensions are twenty-five feet wide at surface, twenty at bottom, four feet deep. Canals on a smaller scale are constructed at Seneca Falls, Shenandoah Falls, and House's Falls. These works were executed by the Potomac company, incorporated in 1784 by Maryland and Virginia; but they are to be surrendered to the Chesapeake and Ohio canal company. The most important undertaking, however, is the Baltimore and Ohio Rail-road, which is to extend from the city of Baltimore to the river Ohio, about 350 miles; it is now in progress, and is the greatest enterprise of the kind in America.

In 1696 funds were appropriated by the province for the support of a college and free schools, the former of which had made considerable progress before 1776. Washington College, at Chestertown, was established in 1782. St. John's College was established in 1784, at Annapolis, and these two were united into a university. After the peace of 1783, a fund was again appropriated for the college. This was withdrawn in 1804; but the state appropriated 12,000 dollars per annum, and in 1813 laid a tax upon bank stock, which yields about 10,000 dollars, the whole of which is appropriated to the support of free and charity schools. In addition to this, the personal estate of any person who dies intestate, and leaves no relations within the fifth degree, is appropriated to this object, with the exception of the property of seamen who die in the port of Baltimore, which devolves to the Charitable Marine Society.

The money received from the tax on bank stock is equally divided among all the counties in the state, although the population of some is much greater than that of others. Sunday schools are very numerous.—In 1807 the legislature founded, in the city of Baltimore, a college for the instruction of students in the different branches of medical knowledge, and, in 1812, the faculty of medicine was authorised to annex the faculties of divinity, law, and arts and sciences, the whole of which were incorporated under the name of the University of Maryland. The institution is governed by twenty eight regents and a provost. The professor of theology and six ordained ministers constitute the faculty of divinity; the professor of law and six qualified members of the bar, that of law; that of medicine is composed of the professors of surgery, anatomy, the theory and practice of physic, chemistry and mineralogy, institutes of medicine, obstetrics, and materia medica; that of arts and sciences is constituted of four professors and the principals of any three academies or colleges in the state. Each faculty organizes itself, chooses its own dean, fills its own vacancies, and makes such rules for its government as are not inconsistent with those enacted by the regents. The medical school offers great facilities for the acquisition of information in that department of science, as much pains has been bestowed in rendering it complete. The philosophical and chemical apparatus is extensive, and the museum contains a very valuable collection of anatomical preparations. The mineralogical collection is also very respectable. The state has recently granted 30,000 dollars to this rapidly growing institution.

Baltimore College, a chartered and respectable seminary, is in a very flourishing state. St. Mary's College belongs to the Roman Catholics, and is a very flourishing institution. It was incorporated in 1805 as a university, and has an extensive library, and philosophical and chemical apparatus. Its officers are a president, vice-president, and nine professors. In addition to the above there are extensive academies at Somerset, Elkton, Washington, Talbot, Charlotte Hall, Frederick County, Garrison Forest, Franklin (Allegany County), Centreville, Rockville, Hagerstown, Cambridge, Hillsborough, West Nottingham, and Hartford County. The arrangements for the promotion of knowledge in this state are highly liberal, and bid fair to produce the best effect.

The Roman Catholics in this state have one archbishop, the metropolitan of the United States, and 30 or 40 churches; the Methodists are numerous; the Episcopalians have 57 ministers; the Presbyterians, 11 ministers, 6 licentiates, and 1,058 communicants; the Baptists, 15 churches, 12 ministers, and 680 communicants; the German Reformed, 9 ministers; the Friends are numerous, and there are some Mennonites, one congregation of Unitarians, and one of the New Jerusalem Church.

TOPOGRAPHY OF

Population of the Counties and County Towns.

WESTERN SHORE.					
Counties.	Population, 1820.	Population, 1830.	Chief Towns.	Distance, A. ^b | W. ^a	
Allegany, N. W.	8,654	10,602	Cumberland	165	132
Anne Arundel, M.	27,165	28,295	ANNAPOLIS	37	
Baltimore, N.	33,663	40,251	{ Baltimore	30	38
Baltimore, city,	62,738	80,625			
Calvert, S.	8,073	8,899	Prince Fredericktown	63	56
Charles, S.	16,500	17,666	Port Tobacco	69	32
Frederick, N.	40,459	45,793	Frederick	76	43
Harford, N. E.	15,924	16,315	Belair	53	61
Montgomery, W. M.	16,400	19,816	Rockville	52	15
Prince George's, S. M.	20,216	20,473	Upper Marlborough	23	18
St. Mary's, S.	12,974	13,455	Leonardtown	72	63
Washington, N. W. M.	23,075	25,265	Hagerstown	101	63
EASTERN SHORE.					
Caroline, E.	10,018	9,070	Denton	44	81
Cecil, N. E.	10,048	15,432	Elkton	80	88
Dorchester, S. E.	17,759	18,685	Cambridge	62	99
Kent, E.	11,453	10,502	Chestertown	47	82
Queen Anne's, E.	14,952	14,396	Centreville	32	69
Somerset, S. E.	19,579	20,155	Princess Anne	107	144
Talbot, E. M.	14,387	12,947	Easton	47	84
Worcester, S. E.	17,421	18,271	Snowhill	127	164
Total	407,350	446,913			

Different Classes of Population in 1830.

	Whites.	Slaves.	Free coloured persons.
Males	147,315	53,429	34,920
Females	143,778	49,449	28,022
Total	291,093	102,878	62,942

Baltimore, in population, the third city in the United States is built round a bay which sets up from the north side of the Patapsco river, and affords a spacious and convenient harbour. Annapolis, the seat of government, is on the south bank of the Severn, two miles from its mouth; population about 2000. Fredericktown, is a flourishing town on a branch of Monocosity creek, forty-two miles west of Baltimore, and has about 5000 inhabitants. It is in the midst of a fertile country, and sends great quantities of wheat and flour to Baltimore. — Hagerstown is situated in the fertile valley of Conecocheague, on the west bank of the Antietam Creek, twenty-seven miles north-west of Fredericktown. Cumberland is at the head of boat navigation on the Potomac. The ports of entry, besides Baltimore and Annapolis, are St. Mary's, on the Potomac; Nottingham, on the Patuxent; Havre de Grace, at the mouth of the Susquehanna; Chestertown, on Chester River; Oxford,

^b From Annapolis.^c From Washington.

on Treadhaven Creek, which falls into the Choptank near its mouth; Vienna, on the Nanticoke; and Snowhill, on the Pocomoke. At each of the three last mentioned places a considerable amount of shipping is owned.

THE DISTRICT OF COLUMBIA

Is a tract of ten miles square, about equally divided by the Potomac, ceded by the states of Maryland and Virginia to the general government. It has an uneven surface, but is not mountainous, and the soil is light and sandy. This small district comprises the city of Washington, the seat of the general government. Although this city is of no moment in a commercial view, yet, from its political consequence, a brief description of it is indispensable.

It is situated on the Maryland side of the Potomac, and on a point of land formed by the junction of the eastern branch with the main river. The plan of Washington, if ever completed, its public edifices, and the elegance of its situation, will render it one of the most splendid cities in the world. The Capitol stands on a lofty eminence, and commands a delightful prospect of the Pennsylvania Avenue, the President's House, Georgetown and the Potomac, the General Post-Office, the Navy Yard, Greenleaf's Point, the bridge on the river, and the road to Alexandria and Mount Vernon. It is a magnificent edifice.—The Rotunda comprehends the spacious area between the two wings of the structure, and is of a circular form. It is entirely of marble, (and so indeed is every permanent part of the Capitol,) excepting the light doors covered with green baize that lead out of it, and the frame of the skylight above. The dome is lofty and imposing. The floor is beautifully paved, and the sound of a single voice uttering words in an ordinary tone reverberates with considerable power. In the niches left about fifteen feet from the floor, are four sculptured pieces as large as life, designed to commemorate some of the prominent events in the early history of the country. The scene of the first device is laid in 1773, and is designed to represent a contest between Daniel Boon, an early settler in one of the western states, and an Indian chief. The second represents the landing of the pilgrims at Plymouth in 1610. The third is a representation of William Penn and two Indian chiefs in a treaty in 1682, under the memorable elm on the right bank of the Delaware, near Philadelphia. And the fourth represents the narrow escape, in 1606, of Captain John Smith, the first successful adventurer in Virginia, from the uplifted war-club of King Powhatan. The figure of Pocahontas, in the attitude of supplicating the mercy of her father in behalf of the intended victim, is beautifully wrought, and the whole exhibits much elegance of design and workmanship.—The Chamber of the House of Representatives is one of the richest and most splendid apartments of the kind that has ever been constructed. It is semi-circular, with dark blue columns of polished stone, and is lighted from the roof.—The National Library is in the same edifice, and contains the paintings executed by Colonel

Trumbull. They are The Declaration of Independence, The Surrender of the English Armies on the plains of Saratoga and at Yorktown, and General Washington in the act of resigning his Commission. The President's House has four spacious buildings near it for the accommodation of the heads of department.—The Navy Yard is situated on the eastern branch of the Potomac. A monument is here erected to the memory of the American officers who fell in the Tripolitan war.—Georgetown is on the same side of the Potomac with Washington, three miles west of the Capitol. It is very pleasantly situated, and is a place of considerable trade.

Alexandria, an incorporated city on the west bank of the river, is a place of extensive business, and of fashionable resort during the sittings of congress. It contains a court-house, six churches, and a theological seminary. The museum at this place contains, among its valuables, an elegant satin robe, scarlet on one side and white on the other, in which General Washington was baptized; a penknife with a pearl handle, given to him by his mother when he was in his twelfth year, and which he kept fifty-six years; a pearl button, from the coat he wore at his first inauguration as President of the United States in the old City Hall, New York; a black glove, worn by him while in mourning for his mother; part of the last stick of sealing wax which he used; the original of the last letter written by him, being a polite apology, in behalf of himself and Mrs. Washington, for declining an invitation to a ball at Alexandria; (it is penned with singular neatness, accuracy and precision, and contains this expression—"Alas! our dancing days are over;") a beautiful masonic apron, with the belt of scarlet satin and the white kid gloves worn by him the last time he shared in the social ceremonies of the "mystic tie."

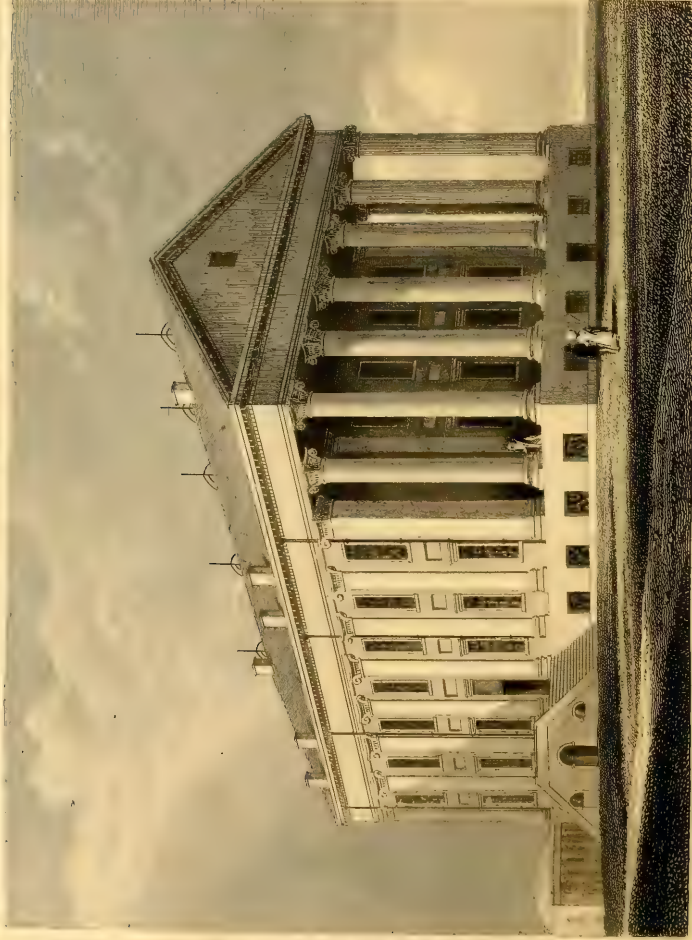
The Chesapeake and Ohio canal was commenced in 1828. The proposed length is 341½ miles; the breadth, at the surface of the water, sixty to eighty feet; at the bottom fifty feet; the depth of water, six to seven feet. According to the plan of this canal, it will pass from the tide-water of the Potomac above Georgetown, and terminate near Pittsburg, in Pennsylvania. Five miles from Georgetown the canal is so planned that a branch may be constructed to Alexandria, another to Baltimore, and another to the navy-yard in Washington. The first estimate of the cost was 22,375,000 dollars, but it is maintained that the cost will not exceed 10,000,000 dollars. The United States have authorized a subscription of 1,000,000 dollars to the stock of this company. To be constructed by the Chesapeake and Ohio Canal Company. The charter was granted by Virginia in 1824, and confirmed by Maryland and congress in 1825.

The Baptists in this district have 18 churches, 10 ministers, and 1,658 communicants; the Presbyterians, 9 churches, 11 ministers, 5 licentiates, and 996 communicants; the Methodists, 1,400 members; and the Episcopalians, 5 ministers; the Catholics, several churches; and the Unitarians, 1 minister.



VIEW OF THE CHURCH OF ST. JOHN THE BAPTIST, BOSTON, MASS.





CAPITOL OF VIRGINIA, RICHMOND

THE FARMER

THE PLAYS

Population.

	1810.	1820.	1830.
Washington . . .	8,208	12,274	18,827
Alexandria . . .	7,227	8,218	8,263
Georgetown . . .	4,948	7,360	8,441

VIRGINIA.

This is at once the most ancient and most extensive state in the Union. It is bounded on the north by Pennsylvania, on the north-east by Maryland, on the east by the Atlantic, on the south by North Carolina and Tennessee, and on the west by Kentucky and Ohio. In longitude, it extends from $75^{\circ} 25'$ to $83^{\circ} 4'$; and in latitude, from $36^{\circ} 30'$ to $40^{\circ} 37'$. Its greatest length is 430 miles, and its mean width upwards of 150 miles; comprising about 700,000 square miles.

Though the zones of Virginia are not very distinctly marked, each part has its appropriate character. The oceanic section of Virginia is its tropical climate. Latitude, exposure, and depressed level, all combine to give the Chesapeake counties a much more elevated temperature than is found in the interior. This difference is seen on vegetation. In the lower counties, cotton may be cultivated successfully, whilst the uncertainty of grain and meadow grasses evinces a southern summer. The middle, in all the Atlantic states south from Pennsylvania, we find to be the arcadia of the state. Middle Virginia is, however, blended with the mountainous, the former containing the whole or great part of the valley counties, Berkley, Jefferson, Frederick, Shenandoah, Rockingham, Augusta, Rockbridge, Botetourt, Montgomery, Wythe, and Washington. The real mountain section lies north-west from the middle, and extends to the Ohio. The extreme western part is, indeed, composed of a congeries of hills with alluvial bottoms, but the actual mountain ridges approach so near Ohio River, and the hills are in themselves so generally abrupt and lofty, as to give an alpine appearance to the country. Taken as a whole, central Virginia has the best soil, though in the mountainous part there is much that is excellent. With the exception of the south-eastern counties, grain and orchard fruits are highly congenial to Virginia, and their various products are the natural, actual, and, we may safely say, the permanent staples of the state. Of metals, iron ore is abundant in the central and western sections. Brine has been procured on the Great Kenhawa, and salt extensively manufactured.

Virginia is justly celebrated for the grandeur of its scenery. The natural bridge over Cedar creek, twelve miles south-west of Lexington, is esteemed one of the most extraordinary natural curiosities in the world.^d The passage of the Potomac

^d We give Mr. Jefferson's description from his Notes on Virginia.—“It is on the ascent of a hill which seems to have been cloven through its length by some great convulsion. The fissure, just by the bridge, is by some admeasurements, 270 feet deep, by others only 205. It is about forty-five feet wide at the bottom, and ninety feet at the top; this, of course, determines the length of the bridge, and its height from the water; its breadth in the middle is about sixty feet, but more at the ends, and the thickness of the mass, at the summit of

through the Blue Ridge, at Harper's Ferry, is also celebrated.* There are several interesting caves, of which the most extraordinary is Wier's Cave, on the north-west side of the Blue Ridge. It is between 2,000 and 3,000 feet in length, and comprises various apartments, containing beautiful stalactites and incrustations, which display the most sparkling brilliancy when surveyed by the light of a torch. Near this there is another singular cavern, called Madison's Cave; and in one of the ridges of the Allegany mountains, is Blowing Cave, from which a current of air continually issues, strong enough to prostrate the weeds at the distance of sixty feet. One of the largest mounds in the valley of the Ohio is in Virginia, near the Ohio, fourteen miles below Wheeling. It is about 300 feet in diameter at the base, sixty at the top, and the perpendicular height is seventy feet. It contains thousands of human skeletons.

the arch, about forty feet. A part of this thickness is constituted by a coat of earth, which gives growth to many large trees; the residue, with the hill on both sides, is one solid rock of lime-stone. The arch approaches the semi-elliptical form, but the larger axis of the ellipse, which would be the chord of the arch, is many times longer than the transverse. Though the sides of this bridge are provided in some parts with a parapet of fixed rocks, yet few men have resolution to walk to them, and look over into the abyss: you involuntarily fall on your hands and feet, creep to the parapet, and peep over it. Looking down from this height about a minute gave me a violent head-ache. If the view from the top be painful and intolerable, that from below is delightful in an equal extreme; it is impossible for the emotions arising from the sublime to be felt beyond what they are here: so beautiful an arch, so elevated, so light, and springing as it were up to heaven! the rapture of the spectator is really indescribable! The fissure continuing narrow, deep, and straight for a considerable distance above and below the bridge, opens a short but very pleasing view of the North Mountain on one side, and Blue Ridge on the other, at the distance each of them of about five miles. This bridge is in the county of Rockbridge, to which it has given name, and affords a public and commodious passage over a valley which cannot be crossed elsewhere for a considerable distance. The stream passing under it is called Cedar Creek; it is a water of James' River, and sufficient in the driest seasons to turn a grist mill, though its fountain is not more than two miles above."—*Notes on Virginia*, pp. 21, 22.

* "The passage of the Potomac through the Blue Ridge is perhaps one of the most stupendous scenes in nature. You stand on a very high point of land; on your right comes up the Shenandoah, having ranged along the foot of the mountain an hundred miles to seek a vent; on your left approaches the Potomac, in quest of a passage also; in the moment of their junction they rush together against the mountain, rend it asunder, and pass off to the sea. The first glance of this scene hurries our senses into the opinion, that this earth has been created in time, that the mountains were formed first, that the rivers began to flow afterwards, that in this place particularly they have been dammed up by the Blue Ridge of mountains, and have formed an ocean which filled the whole valley; that, continuing to rise, they have at length broken over at this spot, and have torn the mountain down from its summit to its base. The piles of rock on each hand, but particularly on the Shenandoah, the evident marks of their disrapture and avulsion from their beds by the most powerful agents of nature, corroborate the impression. But the distant finishing which nature has given to the picture, is of a very different character; it is a true contrast to the foreground; it is as placid and delightful as that is wild and tremendous: for the mountain being cloven asunder, she presents to your eye, through the cleft, a small catch of smooth blue horizon, at an infinite distance in the plain country, inviting you, as it were, from the riot and tumult roaring around, to pass through the breach and participate of the calm below. Here the eye ultimately composes itself; and that way too the road happens actually to lead. You cross the Potomac above the junction, pass along its side through the base of the mountain for three miles, its terrible precipices hanging in fragments over you, and, within about twenty miles, reach Fredericktown, and the fine country round that. This scene is worth a voyage across the Atlantic; yet here, as in the neighbourhood of the Natural Bridge, are people who have passed their lives within half a dozen miles, and have never been to survey these monuments of a war between rivers and mountains, which must have shaken the earth itself to its centre." — *Jefferson's Notes on Virginia*, pp. 17, 18.

This state has a large fund, the income of which is appropriated to internal improvements. Dismal Swamp Canal, twenty-two miles long, opens a communication between Norfolk, in Virginia, and Elizabeth City, in North Carolina. There are various other canals for the improvement of the navigation of the James, the Jackson, and the Shenandoah Rivers.

No provision had been made for a general system of education, to be supported by the state, until the formation of the Literary Fund. Academies and colleges were established by the legislature, and the trustees incorporated, on the application of individuals. The colleges are, William and Mary, at Williamsburg, founded during the reign of the sovereigns whose names it bears; Hampden Sydney, in Prince Edward county, incorporated in 1783; and Washington, at Lexington, originally Liberty Hall Academy; in 1796, its name was changed to Washington Academy, on receiving a donation of the shares in the James River and Potomac Companies, which had been presented by the legislature of Virginia to General Washington, and which he had declined to accept, unless permitted to turn their destination from his private emoluments to objects of a public nature; in 1812 its name was still further changed to Washington College, which it now bears. A college, to be denominated the Central College, was about to be established at Charlottesville, by the private contributions of some of the most enlightened and patriotic citizens in Virginia, when the legislature, in appropriating the interest of the Literary Fund, provided for the University of Virginia. The commissioners appointed to determine the site of the University, selected the very spot intended for the Central College. The lands and other property of the Central College were then conveyed to the president and directors of the Literary Fund, and the University established on the proposed site. This edifice, in which all the orders of architecture are introduced, has been reared up under the parental care of Mr. Jefferson. Combining the effect of the scenery presented by the surrounding country with the plan and execution of the buildings, the University of Virginia is pronounced by competent judges to be equal, if not superior, to any thing of the kind in Europe. This institution, the pride of Virginia, which at first had little more than 200,000 dollars expended on it, (an inconsiderable sum, compared with the magnitude of the object,) required nothing additional but a library and the necessary apparatus to put it into complete operation. In 1823 the legislature made arrangements which were calculated speedily to effect this desirable object.

The Baptists in this state have 337 churches, 192 ministers, and 39,440 communicants; the Methodists, 77 preachers and 27,947 members; the Presbyterians, 104 churches, 75 ministers, 15 licentiates, and 7,508 communicants; the Episcopalians, 45 ministers; the Friends are numerous, and there are some Lutherans, Roman Catholics, and Jews.

Population of the Counties and County Towns.

EASTERN DISTRICT.							
Counties.	Whites.	Slaves.	Free Blacks.	Total Population, 1820.	County Towns.	Distance.	
						R. ¹	W. ²
Accomac, E. . . .	9,458	4,654	2,544	19,656	Accomac, C. H. . .	214	206
Albemarle, M. . . .	10,455	11,689	484	22,618	Charlottesville . .	81	123
Amelia, S. M. . . .	3,293	7,518	220	11,031	Amelia, C. H. . . .	47	169
Amherst, M.	5,879	5,927	263	12,072	Amherst, C. H. . .	136	180
Bedford, S.	11,113	8,790	341	20,253	Liberty	145	223
Brunswick, S. . . .	5,397	9,760	612	15,770	Lawrenceville . . .	69	191
Buckingham, N. M. .	7,172	10,928	245	18,351	Buckingham, C. H. .	87	162
Campbell, S. M. . .	7,497	7,735	473	15,704	Campbell, C. H. . .	132	210
Lynchburg, town . .	2,490	1,751	385	4,626	Lynchburgh	120	198
Caroline, E. M. . . .	6,490	10,764	520	17,774	Bowling Green . . .	44	78
Charles City, E. M. .	1,782	2,957	761	5,504	Charles City, C. H. .	30	152
Charlotte, S. M. . .	5,583	9,433	236	15,252	Charlotte, C. H. . .	96	187
Chesterfield, E. M. .	7,709	10,337	591	18,637	Chesterfield, C. H. .	14	136
Culpeper, N. M. . . .	12,044	11,419	563	24,026	Culpeper, C. H. . . .	94	76
Cumberland, M. . . .	4,054	7,309	326	11,689	Cumberland, C. H. .	55	140
Dinwiddie, S. M. . .	7,709	10,337	591	18,637	Dinwiddie, C. H. . .	40	162
Petersburg, town . .	3,440	2,850	2,032	8,322		22	144
Elizabeth City, S. E. .	2,704	2,218	131	5,068	Hampton	96	199
Essex, E.	3,647	6,417	467	10,531	Tappahannock . . .	50	109
Fairfax, N. E. . . .	4,892	3,972	311	9,206	Fairfax, C. H. . . .	129	21
Fauquier, N. M. . .	13,116	12,612	621	26,379	Warrenton	107	51
Fluvanna, M.	4,223	3,795	203	8,221	Palmyra	59	136
Franklin, S.	9,728	4,988	195	14,911	Rocky Mount	185	263
Gloucester, E. . . .	4,314	5,691	603	10,608	Gloucester, C. H. . .	82	166
Goochland, M. . . .	3,857	5,706	795	10,358	Goochland, C. H. . .	28	127
Greenville, S. . . .	2,104	4,681	332	7,117	Hicksford	63	185
Halifax, S.	12,915	14,527	590	28,032	Halifax, C. H. . . .	130	220
Hanover, E. M. . . .	6,526	9,278	449	16,253	Hanover, C. H. . . .	20	102
Henrico, E. M. . . .	5,717	5,934	1,089	12,738			
Richmond, city . . .	7,757	6,345	1,960	16,060	} RICHMOND		122
Henry, S.	4,058	2,868	174	7,100	Martinsville	207	299
Isle of Wight, S. E. .	5,023	4,272	1,222	10,517	Smithfield	180	204
James City, E. . . .	1,284	1,983	571	3,838	Williamsburgh . . .	60	163
King and Queen, E. .	4,714	6,514	416	11,644	King and Queen, C. H.	49	142
King George, N. E. .	2,475	3,635	287	6,397	King George, C. H. .	88	78
King William, E. M. .	3,155	6,310	347	9,812	King William, C. H. .	27	120
Lancaster, E.	1,976	2,631	195	4,800	Lancaster, C. H. . . .	83	145
Loudon, N. E.	15,517	5,360	1,062	21,938	Leesburg	153	31
Louisa, M.	6,468	9,362	301	16,151	Louisa, C. H.	54	110
Lunenburg, S. . . .	4,479	7,233	245	11,957	Lunenburg, C. H. . .	91	213
Madison, M.	4,389	4,873	71	9,236	Madison	110	96
Matthews, E.	3,995	3,481	189	7,663	Matthews, C. H. . . .	100	184
Mecklenburg, S. . .	7,443	11,950	874	20,366	Boynton	118	224
Middlesex, E. . . .	1,870	2,137	118	4,122	Urbanna	83	142
Nansemond, S. E. . .	5,143	4,943	1,698	11,784	Suffolk	102	224
Nelson, M.	5,186	5,946	122	11,251	Lovington	118	160
New Kent, E. M. . . .	2,586	3,530	342	6,457	New Kent, C. H. . . .	30	133
Norfolk, S. E. . . .	8,180	5,842	966	14,998	} Portsmouth	116	219
Norfolk, borough . .	5,131	3,757	928	9,816	} Norfolk	112	235
Northampton, E. . .	3,573	3,734	1,334	8,644	Eastville	174	244
Northumberland, E. .	4,029	3,357	567	7,953	Northumberland, C. H.	92	151
Nottoway, S. M. . . .	2,949	6,955	223	10,141	Nottoway, C. H. . . .	67	189
Orange, M.	6,456	7,983	198	14,637	Orange	80	92
Patrick, S.	5,494	1,782	117	7,393	Patrick, C. H.	241	333
Pittsylvania, S. . . .	14,690	10,992	340	26,022	Pittsylvania, C. H. .	167	259
Powhatan, M.	2,661	5,472	384	8,517	Scottsville	32	138
Prince Edward, S. M. .	5,039	8,593	475	14,107	Prince Edward, C. H. .	75	176
Prince George, E. M. .	3,066	4,593	700	8,368	City Point	34	156
Prince William, N. E. .	5,127	3,342	361	9,330	Brentsville	104	48

¹ From Richmond.² From Washington.

Counties.	Whites.	Slaves.	Free Blacks.	Total Population 1830.	County Towns.	Distance. ^a W.
Princess Anne, s. e. . . .	5,023	3,736	343	9,102	Princess Anne, C. H. . . .	137 240
Richmond, e.	2,975	2,630	451	6,056	Richmond, C. H.	56 118
Southampton, s. e. . . .	6,573	7,755	1,745	16,073	Jerusalem	81 203
Spottsylvania, e. m. . . .	4,685	6,925	310	11,920	} Fredericksburg	66 56
Fredericksburg town . . .	1,798	1,125	384	3,307		
Stafford, n. e.	4,713	4,164	485	9,362	Stafford, C. H.	76 46
Surry, s. e.	2,865	3,377	866	7,108	Surry, C. H.	60 183
Sussex, s. e.	4,118	7,736	866	12,720	Sussex, C. H.	50 172
Warwick, s. e.	619	892	27	1,570	Warwick, C. H.	81 184
Westmoreland, e.	3,718	3,845	848	8,411	Westmoreland, C. H. . .	70 116
York, e.	2,129	2,598	627	5,354	Yorktown	72 175
Total	375,940	416,259	40,780	832,979		

WESTERN DISTRICT.

Alleghany, m.	2,197	571	48	2,816	Covington	191 233
Augusta, North, m. . . .	7,208	1,677	257	9,142	} Staunton	121 163
Augusta, South, m. . . .	8,048	2,588	147	10,783		
Bath, m.	2,803	1,140	65	4,008	Bath, C. H.	170 212
Berkley, n.	8,323	1,919	276	10,528	Martinsburg	172 71
Botetourt, s. m.	11,808	4,170	386	16,354	Fincastle	196 235
Brooke, n. w.	6,774	227	39	7,040	Wellsburg	373 280
Cabell, w.	5,267	561	56	5,884	Cabell, C. H.	344 393
Frederick, East, m. . . .	8,104	5,342	653	14,099	} Winchester	150 71
Frederick, West, n. . . .	9,260	2,088	598	11,946		
Giles, w.	4,779	470	49	5,298	Giles, C. H.	240 297
Grayson, s.	7,161	462	52	7,675	Grayson, C. H.	276 354
Greenbrier, w. m.	7,791	1,159	65	9,015	Lewisburgh	221 263
Harrison, East, n. w. . .	9,443	626	50	10,119	} Clarksburg	260 226
Harrison, West, n. w. . .	4,404	145	10	4,558		
Hampshire, n.	9,796	1,330	153	11,279	Romney	195 116
Hardy, n.	5,408	1,167	223	6,798	Moorfields	195 128
Jefferson, n.	8,438	3,999	493	12,927	Charleston	182 60
Kenhawa, w.	7,468	1,718	75	9,261	Kenhawa, C. H.	308 356
Lee, s. w.	5,830	612	19	6,461	Jonesville	392 468
Lewis, w. m.	6,066	162	13	6,241	Weston	249 249
Logan, w.	3,511	163	6	3,680	Logan, C. H.	324 383
Mouongalia, East, n. . . .	6,352	233	103	6,688	} Morgantown	293 215
Monongalia, West, n. . . .	7,223	129	16	7,368		
Mason, w.	5,776	713	45	6,534	Point Pleasant	371 352
Monroe, w. m.	7,033	682	83	7,798	Union	208 267
Montgomery, s. w.	10,212	2,037	55	12,304	Christiansburg	206 282
Morgan, s.	2,517	153	22	2,692	Berkley Springs	186 93
Nicholas, w. m.	3,229	119	1	3,349	Nicholas, C. H.	268 310
Ohio, n. w.	15,033	362	195	15,590	Wheeling	357 264
Pendleton, n. m.	5,750	498	23	6,271	Franklin	171 171
Pocahontas, w. m.	2,297	227	17	2,541	Huntersville	191 233
Preston, n.	4,947	125	27	5,099	Kingwood	261 183
Randolph, n. m.	4,426	259	115	5,000	Beverly	210 221
Rockbridge, m.	10,465	3,398	381	14,244	Lexington	156 198
Rockingham, m.	17,814	2,331	548	20,693	Harrisonburg	122 144
Russell, s. w.	6,002	679	36	6,717	Lebanon	330 394
Scott, s. w.	5,349	338	15	5,702	Estillville	368 444
Shenandoah, East	7,171	992	164	8,327	} Woodstock	156 100
Shenandoah, W. s. m. . . .	9,698	1,431	294	11,423		
Tazewell, s. w.	4,912	820	18	4,104	Tazewell, C. H.	290 352
Tyler, n. w.	3,991	108	5	5,750	Middlebourne	307 273
Washington, s. w.	12,785	2,568	261	15,614	Abington	309 385
Wood, w.	5,487	873	49	6,409	Parkersburg	299 299
Wythe, s. w.	9,952	2,094	117	12,163	Wythe	253 329
Total	318,505	53,465	6,323	378,293		
Total of Virginia	694,445	469,724	47,103	1,211,272		

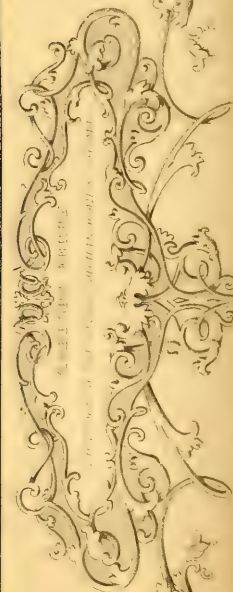
^a From Richmond.^b From Washington.

Richmond, the seat of government, has a beautiful and picturesque situation, at the head of the tide and at the falls of James River, and is the largest town in the state; it is favourably situated for trade and manufactures, and has an extensive commerce. Norfolk, on Elizabeth River, 8 miles above its entrance into Hampton Road, has a good harbour, and is the most commercial town in Virginia. The site is low, and in some places marshy, and the houses are not remarkable for elegance. At Gosport, near Norfolk, there is a United States navy-yard. Petersburg, on the Appomatox, at the head of the tide, is the third commercial town, and has considerable trade in flour, tobacco, and cotton. Lynchburg, on James River, where it passes through a mountain ridge, 118 miles west of Richmond, is a flourishing town, and has an extensive trade and considerable manufactures: flour, tobacco, hemp, and other produce, are transported down the river from this town to Richmond. Fredericksburg, on the Rappahannock, near the head of navigation, has considerable commerce; and Winchester, to the west of the Shenandoah, is a handsome and flourishing inland town. Williamsburg, a town now decayed, is famous for having formerly been the capital of Virginia; Yorktown, for the surrender of the British army under Cornwallis; Charlottesville, as the seat of the University of Virginia; Lexington, as the seat of Washington College; Harper's Ferry, for the passage of the Potomac through the Blue Ridge, and for a United States armory; and the flourishing town of Wheeling, for its situation at the point where the Cumberland Road reaches the Ohio. Mount Vernon, a pleasant eminence on the Potomac, nine miles below Alexandria, is famous for having been the residence of Washington; and Monticello, near Charlottesville, for having been the seat of Jefferson.

KENTUCKY.

This rising state is the most central in the Union, as at present organized. It is bounded on the north-east by the state of Ohio; on the east by Virginia; on the south by Tennessee; and on the north-west by Illinois and Indiana. It extends from longitude $81^{\circ} 50'$ to $89^{\circ} 29'$; and from latitude $36^{\circ} 30'$ to $39^{\circ} 10'$: its extreme length is 380 miles; mean width 99; and area 37,680 miles.

The eastern counties, bordering on Virginia, are mountainous and broken. A tract from five to twenty miles wide along the banks of the Ohio is also hilly and broken, interspersed with fertile valleys. Between this strip, Green River, and the eastern counties, lies what has been called the garden of the state; it is the most populous part, and is about 150 miles long, and from fifty to 100 wide. The soil is excellent, and the surface is agreeably diversified. The lands produce much timber, with an abundance of grape-vines. There is a tract of country in the south-western part of the state, east and north of Cumberland River, and watered by Green and Barren rivers, about 100 miles in extent, called the Barrens, which a few years since was



a prairie destitute of timber. It is now covered with a young growth of various kinds of trees. The soil is of an excellent quality, being a mixture of clay, loam, and sand. Through this country there runs a chain of conical hills, called knobs. Ancient fortifications and mounds of earth are found in almost all parts of Kentucky. It is also distinguished for some stupendous caves. One, called Mammoth Cave, 130 miles from Lexington, on the road leading to Nashville, is said to be eight or ten miles in length, with a great number of avenues and windings. Earth strongly impregnated with nitre is found in most of these caves, and there are many establishments for manufacturing it. From 100 pounds of earth, fifty pounds of nitre have frequently been obtained. A number of the rivers in this state have excavated the earth so as to form abrupt precipices, deep glens, and frightful gulfs. The precipices formed by Kentucky River are in many places awful, presenting perpendicular banks of 300 feet of solid limestone, surmounted with a steep and difficult ascent four times as high. The banks of Cumberland River are less precipitous, but equally depressed below the surface of the surrounding country.

In the south-western counties near and on the Tennessee, Cumberland, and Mississippi rivers, cotton is a staple; whilst all the grains, fruits, and meadow grasses of the northern and middle states flourish in the other sections. Wheat, tobacco, and hemp, are staple productions; but Indian corn is the principal grain raised for home consumption. Rye, oats, barley, buckwheat, flax, potatoes, &c. are cultivated: apples, pears, peaches, cherries, and plums, are the most common fruits. The domestic animals are large and beautiful, particularly the horse. Swine, horned cattle, horses, and mules, are annually driven to the neighbouring states for a market, and pork, bacon, and lard, are exported. The fattening of animals is the chief mode of consuming the surplus grain, on account of the expense of conveying it to market. Considerable quantities of whiskey are made. Marble of excellent quality abounds, and the whole state may be said to repose on a bed of limestone. Salt and iron are among its minerals. The most extensive works for the manufacture of salt established west of the Allegany mountains, are on the waters of Kentucky; and they supply not only this state, but a great part of Ohio and Tennessee. Kentucky, from its position and fairs, has also become a manufacturing state.

Louisville and Portland Canal is about two miles in length, fifty feet wide at the bottom, with a lockage of twenty-two and a half feet. It was not completed in 1831. It passes from the Ohio, at Louisville, to a point of the same line below the rapids near Portland-street. The banks are to be elevated two feet above the highest water-mark known at Louisville, which makes forty-two feet from the bottom of the canal. Underneath there is a solid bed of stone for a foundation the whole length of the canal, and this is to be cut perpendicularly to the requisite depth, varying from one to ten feet; the slope above which, to the top of each bank, is to be faced with stone.

The principal literary institution is Transylvania University, at Lexington. It was incorporated before the separation of Kentucky from Virginia. In 1818, it was re-organized under a board of thirteen trustees, who are chosen biennially by the legislature. In 1826, its officers were, a president, nine professors, including six medical professors, five tutors, and a principal of the preparatory department; the library is large and valuable, and a considerable sum has been recently expended in the purchase of a chemical and philosophical apparatus. The number of students, including medical students and those in the preparatory department, in 1825, was 403, of whom 272 were medical. There are also three colleges in different parts of this state supported by different religious societies; viz. St. Joseph's, at Bardstown, by the Roman Catholics; Centre College, at Dainville, by the Presbyterians; and Augusta College, in Bracken county, by the Methodists. Little has yet been done for public schools in this state. A school fund has, however, been established, which, if managed with prudence and integrity, may yet subserve the great purpose of general education. Efforts have been made within the last two or three years to introduce a system of common schools into this state.

The Baptists in this state have 25 associations, 442 churches, 289 ministers, and 37,520 communicants; the Methodists, 77 preachers, and 23,935 members; the Presbyterians, 103 churches, 61 ministers, 6 licentiates, and 7,832 communicants; the Roman Catholics, about 30 priests; the Episcopalians, 5 ministers; the Cumberland Presbyterians are also numerous.

Population of the Counties and County Towns.

Counties.	Population.	Towns.	Population.	Distance.	
				F. ^k	W. ¹
Adair, S. M.	8,220	Columbia	422	91	622
Allen, S.	6,486	Scottsville	189	151	686
Anderson, M.	4,542	Lawrenceburg	320	12	563
Barren, S. W. M.	14,821	Glasgow	617	126	661
Bath, E. M.	8,799	Owingsville	241	73	486
Boone, N.	9,012	Sharpsburg	158	62	497
		Burlington	276	72	513
		Paris	1,219	43	516
Bourbon, N. E. M.	18,134	Millersburg	470	50	515
		Middletown	195	53	505
Bracken, N.	6,392	Augusta	691	73	489
		Hardinsburg	316	118	656
Breckenridge, W. M.	7,345	Cloverport	194	129	667
		Stephenport	64	116	554
Butler, S. W. M.	3,055	Morgantown	76	141	692
Bullitt, N. W. M.	5,600	Shepherdsville	278	74	612
		Mt. Washington	226	56	600
Caldwell, W.	8,332	Princeton	366	229	766
Callaway, S. W.	5,159	Fddyville	167	241	778
		Wadesborough	163	262	801

* From Frankfort.

¹ From Washington.

Counties.	Population.	Towns.	Population.	Distance. Fm | W.a	
Campbell, N.	9,893	{Newport	717	79	498
Casey, M.	4,342	{Covington	743	79	498
Christian, S. W.	12,694	{Liberty	118	66	597
Clarke, M.	13,052	{Hopkinsville	1,263	206	745
Clay, S. E.	3,549	{Winchester	620	45	516
Cumberland, S.	8,636	{Manchester	159	115	558
Daviess, W. M.	5,218	{Burkesville	340	119	628
Edmondson, S. W. M.	2,612	{Owensborough	229	150	688
Estill, E. M.	4,618	{Brownsville	125	138	678
Fayette, W.	25,174	{Irvine	91	71	531
Fleming, N. E.	13,193	{Lexington	6,104	25	534
Floyd, E.	4,266	{Athens	134	35	544
Franklin, M.	9,251	{Flemingsburg	642	79	493
Gallatin, N.	6,680	{Prestonsburg	81	142	445
Garrard, M.	11,870	{FRANKFORT	1,680		538
Grant, N. M.	2,987	{South Frankfort	307		
Graves, S. W.	2,513	{Port William	324	57	565
Grayson, W. M.	3,876	{Lancaster	570	52	559
Greene, M.	13,718	{Williamstown	197	41	520
Greenup, N. E.	5,853	{Mayfield	44	284	823
Hancock, W. M.	1,491	{Litchfield	166	110	661
Hardin, W. M.	13,148	{Greensburg	665	90	625
Harlan, S. E.	2,928	{Campbellsville	126	78	613
Harrison, N. M.	13,180	{Greenupsburg	204	132	428
Hart, S. W. M.	5,292	{Hawsville		130	668
Henderson, W.	6,549	{Elizabethtown	601	80	631
Henry, N. M.	11,305	{Harlan, C. H.		168	490
Hickman, S. W.	5,193	{Cynthiana	977	38	134
Hopkins, W.	6,763	{Leesburg	138	28	235
Jefferson, N. W. M.	24,002	{Clayville	48	50	955
Jessamine, M.	9,961	{Munfordsville	193	105	656
Knox, S. E.	4,321	{Woodsonville	48		
Laurel, S. E. M.	2,182	{Hendersonville	483	180	718
Lawrence, E.	3,897	{New Castle	539	37	556
Lewis, N. E.	5,206	{Clinton	81	308	847
Lincoln, M.	11,012	{Columbus	186		
Livingston, W.	6,607	{Madisonville	112	200	738
Logan, S.	13,002	{Louisville	10,352	52	590
McCracken, W.	1,298	{Shippingport	607	54	592
Madison, M.	18,035	{Portland	398		
Mason, N.	16,293	{Williamsville	70		
Meade, W. M.	4,111	{Nicholasville	409	37	546
		{North Liberty	62		
		{Barboursville	139	122	533
		{Hazle Patch		102	558
		{London	15		
		{Lonisa	87	127	435
		{Clarksburg	62	96	446
		{Vanceburg	93	99	443
		{Concord	31		
		{Stanford	363	51	567
		{Crab Orchard	234	61	577
		{Salem	254	245	783
		{Smithland	388	260	798
		{Russellville	1,358	171	711
		{Wilmington	12	282	827
		{Paducah	105	279	817
		{Richmond	947	50	537
		{Washington	868	63	482
		{Maysville	2,040	67	478
		{Brandenburg	331	90	628

" From Frankfort.

" From Washington.

Counties.	Population.	Towns.	Population.	Distance.	
				P.o	W.p
Mercer, M.	17,706	{ Harrodsburg	1,051	30	565
		{ Danville	849	40	571
		{ Perryville	283	40	575
		{ Salvisa	78	21	572
Monroe, S.	5,125	{ Tompkinsville	220	144	653
Montgomery, M.	10, 21	{ Mount Sterling	561	60	501
		{ Jeffersonville	33		
Morgan, E. M.	2,857	{ West Liberty	50	107	484
		{ Greenville	217	177	715
Muhlenberg, S. W. M.	5,341	{ Bardstown	1,625	55	606
		{ Bloomfield	301	44	593
Nelson, W. M.	14,916	{ Fairfield	88	48	599
		{ Carlisle	430	58	510
Nicholas, N. F. M.	8,832	{ Hartford	242	154	692
Ohio, W. M.	4,913	{ Westport	314	44	577
		{ Bedford	104	53	574
Oldham, N. M.	9,563	{ Brownsville	57	41	574
		{ La Grange	27	35	568
Owen, N. M.	5,792	{ Owenton	143	28	536
		{ New Liberty	161	36	544
Pendleton, N.	3,866	{ Falmouth	207	60	502
Perry, S. E.	3,331	{ Perry, C. H.		148	550
Pike, E.	2,677	{ Pikeville	49	165	422
Pulaski, S. M.	9,522	{ Somerset	231	85	601
Rockcastle, S. E. M.	2,875	{ Mount Vernon	142	73	582
		{ Jamestown	67	109	615
Russell, S. M.	3,883	{ Creelsburg	37	110	641
Scott, N. M.	14,677	{ Georgetown	1,344	17	531
		{ Shelbyville	1,201	21	572
Shelby, N. M.	19,039	{ Simpsonville	77	29	580
		{ Christiansburg	78	15	566
Simpson, S.	6,099	{ Franklin	280	165	705
Spencer, M.	6,815	{ Taylorsville	248	35	586
		{ Elkton	382	186	726
Todd, S.	8,801	{ Trenton	178	200	771
		{ Cadiz	168	226	765
Trigg, S. W.	5,889	{ Canton	146	235	774
Union, W.	4,435	{ Morganfield	292	205	743
		{ Bowling-Green	815	145	685
Warren, S. W. M.	10,947	{ Springfield	618	59	601
		{ Lebanon	384	59	594
Washington, M.		{ Mackville	83	44	595
		{ Fredericksburg	58	59	610
Wayne, S.	8,731	{ Newmarket	43	65	600
		{ Monticello	207	110	607
Whitely, S. E.	3,807	{ Whitely, C. H.		130	557
		{ Williamsburg	50		
Woodford, M.	12,294	{ Versailles	904	13	546
		{ Mortonville	145	20	553
Total.	688,844, of whom 165,350 are slaves.				

The above table contains all the towns and villages in Kentucky of which the population is given in the census of 1830. When two or more towns are given for the same county, the one placed first is the seat of justice.

Frankfort, the seat of government, is regularly laid out on the east-side of Kentucky

• From Frankfort.

• From Washington.

River, sixty miles above its confluence with the Ohio. The site of the town is a semicircular plain, from 150 to 200 feet lower than the table land in its rear. The river is here about eighty yards wide, and, after heavy rains, frequently rises sixty feet. Steam-boats of 300 tons come up the river as far as this place when the water is high. Population in 1820, 1679. Lexington, the largest and wealthiest town in the state, is delightfully situated twenty-five miles east-south-east of Frankfort, in a beautiful valley on Town Fork, a small stream which falls into the south branch of Elkhorn River. It is regularly laid out, and contains numerous and extensive manufacturing establishments. The growth of this town has been exceedingly rapid. In 1797, it contained only about fifty houses, and the best farmers lived in log cabins. It is now a large and respectable town, covered with handsome buildings. The surrounding country is much admired for its scenery, and is adorned with more than fifty country-seats. Population in 1820, 5,279. Louisville, on the Ohio, immediately above the rapids, fifty miles west of Frankfort, is the second town in the state in wealth and consequence. The great command of water power afforded by the rapids of the river, and the other advantages of its situation, have given birth to several extensive manufacturing establishments. A very active commerce is carried on between this place and Natchez, New Orleans, and St. Louis. There were in 1821 upwards of twenty-five steam-boats, measuring together 6,050 tons, employed in this trade. The population of the town in 1820, was 4,012. Most of the foreign goods consumed in Kentucky are landed here, or at Maysville. The other principal towns are, Maysville, on the Ohio, sixty-three miles north east of Lexington, the chief port for the north-east part of the state, containing in 1820, 1,130 inhabitants; Russellville, situated in a very fertile country, 200 miles south-west of Lexington, and containing, in 1820, 1,712 inhabitants; Henderson, on the Ohio, seventy-five miles below Louisville, a place of some trade, and containing, in 1820, 532 inhabitants; Newport, on the Ohio, immediately above the mouth of Licking River, and opposite Cincinnati; it contains a United States arsenal, and had, in 1820, 611 inhabitants; and Paris, in Bourbon county, a flourishing town, with a population of about 1,200 persons, several rope-walks, and manufactories of cotton bagging.

NORTH CAROLINA.

The boundaries of this state are, on the north, Virginia; on the east and south-east, the Atlantic; on the south, South Carolina; on the north-west, Tennessee. It extends from longitude $75^{\circ} 45'$ to 84° , and from latitude $33^{\circ} 50'$ to $36^{\circ} 30'$. Its extreme length from the western border of Haywood county to Cape Hatteras, in a direction but little inclined from east and west, is 420 miles; the area above 50,000 square miles, and the mean width 120 miles.

North Carolina, in its whole width, for about sixty miles from the sea, is generally a dead level, varied only by occasional openings in the forest with which it is covered. After traversing this tedious plain, we are at length relieved by the appearance of hills and mountains, from the summits of which we behold a beautiful country, stretching far to the westward. That portion of the state which lies west of the mountains is, for the most part, remarkably fertile.

No state differs more in soil than North Carolina. Those zones which diversify New Jersey, Maryland and Virginia, are still more conspicuous in this state. The variety of the climate is fully evinced by the indigenous vegetables. The dwarf palms and the live-oak grow around the mouth of Cape-Fear River, whilst in the western counties, the forests mark a climate of much lower temperature. In the south-eastern counties, and partially on the whole seaward zone, cotton is a staple production. As an advance is made westward, this is entirely superseded by grain, of almost every species cultivated in the United States, except rice. The fig-tree flourishes on Lower Cape-Fear River; and in the western and central counties, the apple is produced in abundance. The peach succeeds over the whole state, precarious as it is in every other section of the United States. The soil and productions, in the hilly country, are nearly the same as in the northern states. Wheat, rye, barley, oats and flax are the crops generally cultivated, and they seem to suit the nature of the soil. Throughout the whole state Indian corn and pulse of all kinds are abundant. Cotton is raised in considerable quantities.

North Carolina abounds in iron ore; and it is the only one of the states in which gold has been found in considerable quantities. The gold mines, which have lately excited a good deal of interest, though they have not yet proved very productive, are found on the Yadkin and its branches, and extend over a district comprising about 1000 square miles.^a In almost any part of this territory, gold may be found

^a We extract the following interesting particulars from the American Almanac.—“The first notice of gold from North Carolina, on the records of the Mint of the United States, occurs in the year 1814, within which it was received to the amount of 11,000 dollars. It continued to be received during the succeeding years, until 1824 inclusive, in different quantities, but all inferior to that of 1814, and on an average not exceeding 2,500 dollars a-year. In 1825, the amount received was 17,000 dollars; in 1826, 20,000 dollars; in 1827, about 21,000 dollars; in 1828, nearly 46,000 dollars: and in 1829, 128,000 dollars. This state is rich in gold mines. The gold region is far more extensive in the south than most suppose. It commences in Virginia, and extends south-west through North Carolina, nearly in the middle of the state, as regards its length; along the northern part of South Carolina, into Georgia, and thence northwesterly into Alabama, and ends in Tennessee. The mines in North Carolina and Georgia are now worked to a great extent; those of Virginia and South Carolina to a small extent; and those in Tennessee have not been worked at all, although it is probable that they will be soon. In this state, the counties of Burke and Rutherford contain the best gold washings, as they are called,—that is, the gold there is found in small and pure particles mixed with the sand, which lies in deposits, as if it occupied (as the miners believe) the beds of what were once streams of water. But the counties of Mecklenburg, Rowan, Davidson, and Cabarras, are the richest in what may be properly called gold mines,—that is, where the gold is found in ore, and not distinguishable by the eye, and,

in greater or less abundance, mixed with the soil. It exists in minute grains or particles, and is also sometimes found in lumps of one or two pounds' weight.

North Carolina is far removed from that perfection of culture, which is necessary to give it the full advantage of the natural richness of its soil and the value of its productions. One great cause of its backwardness in agricultural improvement, is the want of inland navigation and of good harbours. It has several large rivers, but their mouths are blocked up with bars of hard sand. The best of the indifferent harbours in this state are those of Wilmington, Newbern, and Edenton. Most of the produce of the upper country, consisting of tobacco, wheat, maize, &c., has hitherto been carried to Charleston, South Carolina, and to Lynchburg, and Petersburg, Virginia. Since 1815, the state has been zealously engaged in an extensive system of internal improvements, relating to the navigation of the sound, inlets, and the rivers Roanoke, Tar, Neuse, Cape Fear, Yadkin, Catawba, &c.; the construction of canals and roads, and the draining of marshes and swamps.

Within a few years much zeal has been displayed in the establishment of academies and schools. Until 1804, there were but two academies in the state. The number at present is 60, and it is rapidly increasing; and there is a flourishing university at Chapel Hill, 28 miles west of Raleigh, called the university of North Carolina.

The Baptists in this state have 14 associations, 272 churches, 139 ministers, and

which is separated by smelting, using quicksilver for the purpose of detaching the gold from the gross earthy substances. The best veins of gold are not horizontal, nor often vertical, but have a dip of forty-five degrees to the horizon. They vary in width from a few inches to several feet. They are not confined to hills at all, but are found also in the low lands. These veins are often parallel to each other at unequal distances. Their depth in most places has not been ascertained. There have been no shafts sunk lower than 120 feet. It is not five years since these mines began to be worked to any considerable extent, and yet many of them are worked upon an extensive scale, and mills for grinding the ore, propelled by water or by steam, are erected in vast numbers. One of the Messrs. Bissels, who are probably doing more at the business than any others, told me recently that their company employs 600 hands; and he stated that the whole number of men now employed at the mines in these southern states is at least 20,000. He also estimated the weekly product of these mines to be equal in value to 100,000 dollars, or 5,000,000 dollars annually. But a small part of the gold is sent to the United States mint; by far the larger part is sent to Europe, particularly to Paris.—The chief miners (I mean labourers) are foreigners,—Germans, Swiss, Swedes, Spaniards, English, Welch, Scotch, &c. There are no less than thirteen different languages spoken at the mines in this state; and men are flocking to the mines from all parts, and find ready employment. Hundreds of land owners and renters work the mines on their grounds on a small scale, not being able to encounter the expense of much machinery. The state of morals among the miners is represented to be deplorably bad.—The village of Charlotte, in Mecklenburg county, is in the immediate vicinity of several of the largest mines; it is growing rapidly. There are indubitable evidences that these mines were known and worked by the aboriginal inhabitants, or some other people, a long period since. Many pieces of machinery which were used for this purpose have been found. Among them are several crucibles of earthenware, and far better than those now in use. Mr. B. told me that he had tried three of them, and stated that they last twice or three times as long as even the Hessian crucibles, which are the best now made. These gold mines prove that the whole region in which they abound was once under the powerful action of fire; and the miners who have come from the mines in South America and in Europe, pronounce this region to be more abundant in gold than any other that has been found on the globe.—*American Almanack*, p. 226—228

15,530 communicants; the Presbyterians, have 126 churches, 57 ministers, 9 licentiates, and 5,907 communicants; the Methodists, 32 preachers, and 12,641 members; the Lutherans, 45 congregations, 16 ministers, and 1,888 communicants; the Episcopalians, 11 ministers; the United Brethren, 4 congregations and 1,727 members; and the Friends, a number of societies.

Population of the Counties, and County Towns.

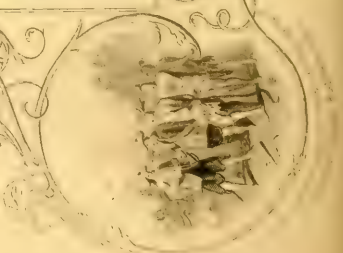
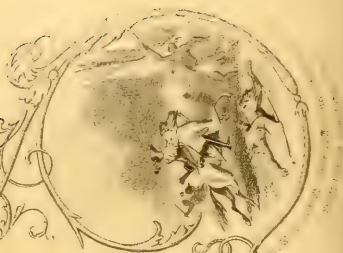
Counties.	Population, 1820.	Population, 1830.	County Towns.	Distance.	
				R. ^r	W. ^s
Anson, s.	12,534	14,081	Wadesborough	134	410
Ashe, N. W.	4,335	6,991	Jefferson	205	399
Beaufort, E.	9,850	10,949	Washington	122	302
Bertie, E. M.	10,805	12,276	Windsor	130	275
Bladen, s.	7,276	7,801	Elizabeth Town	99	385
Brunswick, s.	5,480	6,523	Smithville	178	445
Buncombe, w.	10,542	16,259	Ashville	259	513
Burke, w.	13,412	17,727	Morgantown	199	453
Cabarras, w. M.	7,248	8,796	Concord	141	402
Camden, N. E.	6,347	6,721	New Lebanon	201	248
Carteret, E.	5,609	6,607	Beaufort	166	383
Caswell, N.	13,253	15,188	Caswell, C. H.	93	264
Chatham, M.	12,661	15,499	Pittsborough	33	319
Chowan, N. E.	6,464	6,688	Edenton	155	284
Columbus, s.	3,912	4,141	Whitesville	138	462
Craven, E.	13,394	14,325	Newbern	120	337
Cumberland, M.	14,446	14,824	Fayetteville	61	347
Currituck, N. E.	8,098	7,654	Currituck	211	257
Davidson, w. M.		13,421	Lexington	110	362
Duplin, s. M.	9,744	11,373	Kenansville	120	356
Edgecombe, M.	13,276	14,933	Tarborough	72	252
Franklin, N. M.	9,741	10,665	Louisburg	30	255
Gates, N. E.	6,837	7,866	Gates, C. H.	241	254
Granville, N.	18,222	19,343	Oxford	47	259
Greene, M.	4,533	6,313	Snow Hill	84	298
Guilford, w. M.	14,511	18,735	Greensborough	85	315
Halifax, N.	17,237	17,738	Halifax	86	216
Haywood, w.	4,073	4,593	Haywood, C. H.	295	549
Hertford, N. E.	7,712	8,541	Winton	129	240
Hyde, E.	4,967	6,117	Lake Landing	207	387
Iredell, w.	13,071	15,262	Statesville	146	396
Johnston, M.	9,607	10,998	Smithfield	27	313
Jones, S. E.	5,216	5,628	Trenton	140	357
Lenoir, M.	6,799	7,635	Kingston	80	316
Lincoln, s. W.	18,147	22,625	Lincolnton	169	430
Macon, w.		5,390	Franklin	333	587
Martin, E. W.	6,320	8,544	Williamston	106	268
Mecklenburg, s. W.	16,895	20,076	Charlotte	150	402
Montgomery, w. M.	8,693	10,918	Lawrenceville	109	382
Moore, M.	7,128	7,753	Carthage	69	355
Nash, M.	8,185	8,492	Nashville	44	273
New Hanover, S. E.	10,866	10,759	Wilmington	149	416
Northampton, N.	13,242	13,103	Northampton, C. H.	95	225
Onslow, S. E.	7,016	7,814	Onslow, C. H.	188	405
Orange, M.	23,492	23,875	Hillsborough	41	296
Pasquotank, N. E.	8,008	8,616	Elizabeth City	189	260
Perquimans, N. E.	6,857	7,417	Hertford	282	267
Person, N.	9,029	10,027	Roxborough	60	271

^r From Raleigh.

^s From Washington.



VIEW OF NORTH AMERICA, BAYVIEW



Counties.	Population, 1820.	Population, 1830.	County Towns.	Distance.	
				R. t	W. u
Pitt, E. M.	10,001	12,174	Greenville	97	277
Randolph, W. M.	11,331	12,400	Ashborough	72	345
Richmond, S.	7,537	9,326	Rockingham	113	399
Robeson, S.	8,204	9,355	Lumberton	94	380
Rockingham, N.	11,474	12,920	Wentworth	108	292
Rowan, W. M.	26,009	20,796	Salisbury	118	379
Rutherford, S. W.	15,351	17,557	Rutherfordton	223	484
Sampson, M.	8,908	11,768	Clinton	96	382
Stokes, N. W.	13,033	16,196	Salem	127	355
Surry, N. W.	12,320	14,501	Rockford	151	379
Tyrrell, E.	4,319	4,732	Columbia	170	332
Wake, M.	20,102	20,417	RALEIGH		270
Warren, N.	11,004	10,916	Warrenton	57	229
Washington, E.	3,986	4,562	Plymouth	128	290
Wayne, M.	9,040	10,902	Wanesborough	51	337
Wilkes, N. W.	9,967	11,942	Wilkesborough	175	403
Total	638,829	738,470, of whom 246,462 are slaves.			

Population of the Principal Towns in 1830.

Newbern, 3,776	Raleigh, 1,700	Tarborough, 971
Fayetteville, 2,863	Salisbury, 1,613	Warrenton, 962
Wilmington, 1820, 2,633	Edenton, 1820, 1,561	Plymouth, 660

Raleigh, the seat of government, is pleasantly situated near the centre of the state. Newbern, the largest town, is on a flat sandy point of land, at the junction of the Neuse river with the Trent. Fayetteville is regularly laid out near the west bank of Cape Fear river, at the head of boat navigation, and is one of the most flourishing commercial towns in the state. Wilmington is on the east side of Cape Fear river, just below the confluence of the two branches, 35 miles from the sea. The harbour admits vessels of 300 tons; but the entrance is rendered dangerous and difficult by a large shoal. More produce is exported from this port than from any other in the state. Edenton is on Albemarle Sound, near the mouth of Chowan river.

TENNESSEE

Is bounded on the north by Kentucky and Virginia, on the south-east by North Carolina, on the south by Georgia, Alabama, and Mississippi, and on the west by Arkansas territory. Its length is 420 miles, extending from longitude $81^{\circ} 28'$ to $91^{\circ} 37'$; its breadth 102 miles, from latitude 35° to $36^{\circ} 30'$; comprising an area of 43,000 square miles.

Tennessee is marked by bold features. It is washed by the great river Mississippi on the west, and the fine rivers Tennessee and Cumberland pass through it in very serpentine courses. The western part is undulating; some of it level; in the middle it is hilly; and the eastern part, known by the name of East Tennessee, abounds in mountains, many of them lofty, and presenting scenery grand and picturesque. Of

* From Raleigh.

u From Washington.

these mountains the Cumberland, or Great Laurel Ridge, is the most remarkable. Stone, Yellow, Iron-Bald, Smoky, and Unaka mountains, join each other, and form, in a direction nearly north-east and south-west, the eastern boundary of the state. North-west of these, and separated from each other by valleys of from 5 to 15 miles wide, are Bay's mountain, Copper Ridge, Clinch mountain, Powell's mountain, and Welling's Ridge. The last four terminate north of Tennessee river. They are all encircled by valleys, which open passages for rivers and roads, and give occasion to many beautiful views. Caves of great depth and extent are found throughout the state.

The climate is generally healthy. In East Tennessee it is so tempered by the mountain air on one side, and by refreshing breezes from the gulf of Mexico on the other, that this part of the state has one of the most desirable climates in North America. The middle part resembles Kentucky. The winter in Tennessee resembles the spring in New England. Snow seldom falls to a greater depth than ten inches, or lies longer than ten days. Cumberland river has been frozen over but three times since the country was settled. Cattle are rarely sheltered. In the western parts there are some low bottoms, on which the inhabitants are subject to bilious fevers, and fever and ague in the autumn.

A considerable portion of the state is bedded on limestone. A large deposit of gypsum has been discovered. Copperas, alum, nitre, and lead are among the minerals. Some silver has been found. Coal is supposed to be plentiful. Saltpetre is so abundant as to form a great article of commerce. There are several mineral springs, and many valuable salt springs. The western part of the state has a black, rich soil; in the middle are great quantities of excellent land; in the eastern, the mountains are lean, but there are many fertile valleys. There is a great profusion of natural timber, and in many places are great quantities of cane remarkably thick and strong. The state also abounds with medicinal plants. But the great business of the state is agriculture. The soil produces abundantly cotton and tobacco, which are the staple commodities. The inhabitants also raise a plentiful supply of grain, grass, and fruit. They export cotton, tobacco, and flour; also saltpetre and many other articles. The principal commerce is carried on through the Tennessee and Cumberland Rivers, and from them by the Ohio and Mississippi to New Orleans. This state also supplies Kentucky, Ohio, &c. with cotton for inland manufactures; and from East Tennessee considerable numbers of cattle are sent to the seaports on the Atlantic. It is probable that a new avenue to commerce will soon be opened, by means of roads or a canal between the Tennessee River and the navigable waters of the Tombeckbee. The Chickasaws possess all the western parts of this state, between the Mississippi and Tennessee. The Cherokees own a large tract near the south-east part, on the Hiwassee.

There are nominally four colleges in this state; one at Greenville; one at Knoxville; one at Nashville, and one in Washington county. Greenville College is a flourishing institution. It has a philosophical apparatus, a library of between one and two thousand volumes, and between seventy and eighty students. The college at Knoxville was founded several years since, but has not yet come into operation. It is entitled to the benefit of a donation from congress, which it is expected will yield a capital of 50,000 dollars.

The Baptists in this state have 11 associations, 214 churches, 141 ministers, and 11,971 communicants; the Methodists, 125 preachers, and 38,242 members, including a few belonging to adjacent states; the Presbyterians, 105 churches, 60 ministers, 20 licentiates, and 6,214 communicants; the Lutherans, 10 ministers. The Cumberland Presbyterians, computed at about 100,000, reside chiefly in Tennessee and Kentucky.

Population of the Counties, and County Towns.

WEST TENNESSEE.					
Counties.	Population, 1820.*	Population, 1830.	County Towns.	Distance. N.x | W.†	
Bedford, M.	16,012	30,444	Shelbyville	52	692
Carroll, W.		9,378	Huntingdon	109	823
Davidson, M.	20,154	22,523	} NASHVILLE		714
Nashville, town		5,566			
Dickson, W. M.	5,190	7,261	Charlotte	40	754
Dyer, W.		1,904	Dyersburg	168	882
Fayette, S. W.		8,654	Somerville	184	873
Fentress, N.		2,760	Jamestown	131	600
Franklin, S.	16,571	15,644	Winchester	82	684
Gibson, W.		5,501	Trenton	139	853
Giles, S.	12,558	18,920	Pulaski	77	739
Hardiman, S. W.		11,628	Bolivar	158	849
Hardin, S. W.	1,462	4,867	Savannah	112	803
Haywood, W.		5,356	Brownsville	275	891
Henderson, W. M.		8,741	Lexington	130	840
Henry, N. W.		12,230	Paris	108	810
Hickman, M.	6,080	8,132	Vernon	66	766
Humphreys, W. M.	4,067	6,189	Reynoldsburgh	77	792
Jackson, N.	7,593	9,902	Gainesborough	79	652
Lawrence, S.	3,271	5,412	Lawrenceburgh	75	758
Lincoln, S.	14,761	22,086	Fayetteville	73	722
Madison, W.		11,750	Jackson	147	861
Maury, M.	22,141	28,153	Columbia	42	733
McNairy, S.		5,697	Purdy	128	819
Montgomery, N.	12,219	14,365	Clarksville	46	746
Obion, N. W.		2,099	Troy	161	863
Overton, N.	7,188	8,246	Monroe	109	622
Perry, W. M.	2,384	7,038	Shannonville	114	805
Robertson, N.	7,270	13,302	Springfield	25	727
Rutherford, M.	19,552	26,133	Murfreesborough	33	686
Shelby, S. W.	344	5,652	Memphis	224	915
Smith, N.	17,580	21,492	Carthage	52	670
Sumner, N.	19,211	20,606	Gallatin	25	699
Stewart, N. W.	8,397	6,988	Dover	81	787

* From Nashville.

† From Washington.

TOPOGRAPHY OF

Counties.	Population, 1820.	Population, 1830.	County Towns.	Distance.	
				H. z	W. a
Tipton, W.		5,317	Covington	197	894
Warren, M.	10,348	15,351	McMinnville	74	644
Wayne, S.	2,459	6,013	Waynesborough	92	783
Weakley, N. W.		4,796	Dresden	132	834
White, M.	8,701	9,967	Sparta	92	623
Williamson, M.	20,640	26,608	Franklin	18	732
Wilson, N. M.	18,730	25,477	Lebanon	31	683
Total	287,501	488,448, of whom 124,492 are slaves.			

EAST TENNESSEE.

Anderson, M.	4,668	5,312	Clinton	195	534
Bledsoe, M.	4,005	6,448	Pikeville	109	608
Blount, E.	11,258	11,027	Marysville	197	532
Campbell, N.	4,244	5,110	Jacksonborough	215	543
Carter, N. E.	4,835	6,418	Elizabethtown	316	420
Claiborne, N.	5,508	8,470	Tazewell	243	491
Cocke, E.	4,892	6,048	Newport	247	479
Granger, E. M.	7,651	10,066	Rutledge	232	483
Greene, E.	11,221	14,410	Greenville	273	454
Hamilton, S. E. M.	821	2,274	Hamilton, C. H.	148	619
Hawkins, N. E.	10,949	13,683	Rogersville	264	451
Jefferson, E.	8,953	11,799	Dandridge	229	497
Knox, E. M.	13,034	14,498	Knoxville	199	516
McMinn, S. E. M.	1,623	14,497	Athens	153	572
Marion, S.	3,888	5,516	Jasper	114	653
Monroe, S. E.	2,529	13,709	Madisonville	168	561
Morgan, N.	1,676	2,582	Montgomery	46	746
Rhea, E. M.	4,215	8,182	Washington	129	593
Roane, E. M.	7,895	11,340	Kingston	159	556
Sevier, E.	4,772	5,117	Sevier, C. H.	225	515
Sullivan, N. E.	7,015	10,073	Blountsville	306	409
Washington, E.	9,557	10,995	Jonesborough	298	429
Total	135,312	196,374, of whom 17,890 are slaves.			

Population at different Periods.

Population.		Increase.		Slaves.	Increase.
In 1800,	105,602			13,584	
1810,	261,727	From 1800 to 1810,	156,125	44,535	30,951
1820,	420,813	1810 1820,	159,086	80,107	35,572
1830,	684,822	1820 1830,	264,009	142,382	62,275

The population of none of the towns in Tennessee is given by the new census, with the exception of Nashville, the seat of government, and much the largest town. Some of the other most considerable towns are Murfreesborough, once the seat of government, Clarksville, Franklin, Fayetteville, and Memphis, in West Tennessee; and Knoxville, in East Tennessee.

* From Nashville.

* From Washington.

CHAPTER V.

SOUTH CAROLINA—GEORGIA—ALABAMA—MISSISSIPPI—LOUISIANA.

SOUTH CAROLINA.

THIS state, recently so conspicuous in its opposition to the tariff, is bounded on the north and north-east by North Carolina; on the south-east by the Atlantic, and on the west by Georgia. It extends from longitude $78^{\circ} 24'$ to $83^{\circ} 30'$, and from latitude 32° to $35^{\circ} 8'$; is 275 miles long, and 120 broad, and contains 33,000 square miles.

Like some other states, South Carolina is naturally divided into three zones. The maritime zone rises by a very gentle acclivity from the ocean; the rivers are shallow near their mouths, and much of the surface is flooded by the tides and land floods. This outer belt is followed, about the lower falls of the rivers, by a still more sandy zone, which is in turn succeeded by the hilly tract between the head of tides and the mountains. The third or mountainous tract, with the exception of the mountain ridges and a still increased elevation, differs in no essential respect from the middle or hilly zone. Both the latter sections of South Carolina partake of the general diversity of surface, salubrity of climate, and fertility of soil, which distinguishes the verge of the Apalachian system in all its length. The extreme north-western part of South Carolina is on the great table land from which the sources of the Tennessee flow north and north-west; those of the Chatahooche from south-west; and those of the Savannah and Santee south-east. It is probable that an allowance of two degrees of Fahrenheit will be a moderate estimate for the effect on temperature by difference of level, from the south-east to the north-west angle of this state, and the difference of latitude being $3^{\circ} 10'$, the entire difference of temperature will exceed 5° of Fahrenheit.

The soil of South Carolina is divided into six classes:—1. tide swamp; 2. inland swamp; 3. high river swamp, or low grounds, distinguished by the name of second low grounds; 4. salt marsh; 5. oak and hickory high land; 6. pine barren. The first two classes are peculiarly adapted to the culture of rice and hemp; the third is most favourable to the growth of hemp, corn, and indigo. The salt marsh has been much neglected. The oak and hickory land is remarkably fertile, and well adapted to the culture of corn, as well as indigo and cotton. The pine barren, though the least productive, is so much more salubrious than the other soils in the low country, that a

proportion of it is an appendage indispensable to every swamp plantation. The staple commodities of this state are cotton and rice, of which great quantities are annually exported. These articles have so engrossed the attention of the planters, that the culture of wheat, barley, oats, and other crops equally useful, but less profitable, has been almost wholly neglected. So little wheat is raised throughout the state, that considerable quantities are annually imported. Cotton was not raised in any considerable quantities till so late as 1795. Before that period indigo was, next to rice, the most important article of produce; but it is now neglected. Tobacco thrives well. The fruits which flourish best are pears, pomegranates, and water-melons: the latter, in particular, grow to an enormous size, and are superior, perhaps, to any in the world. Other fruits are figs, apricots, nectarines, apples, peaches, olives, almonds, and oranges.

The period of vegetation comprehends, in favourable years, from seven to eight months, commencing in January or February, and terminating in October or November. The frosts generally, in the months of November, December, January, and February, are too severe for the delicate productions of more southern latitudes. The low country is seldom covered with snow, but the mountains near the western boundary often are. Frost sometimes occurs, but seldom penetrates deeper than two inches, or lasts longer than three or four days. At some seasons and particularly in February, the weather is very variable. The temperature has been known to vary forty-six degrees in one day. In Charleston, for seven years, the thermometer was not known to rise above 93°, or to fall below 17° above 0. The number of extremely hot days in Charleston is seldom more than thirty in a year; and there are about as many sultry nights, in which the heat and closeness of the air are such as to prevent the enjoyment of sound sleep. The low country is infested with all the diseases which spring from a warm, moist, and unelastic atmosphere. Of these the most frequent are fevers, from which the inhabitants suffer more than from any, or perhaps from all other diseases together. The districts of the upper country enjoy as salubrious a climate as any part of the United States.

A rail-road from the city of Charleston to Hamburg, on the Savannah, opposite to Augusta, is in progress. The whole length of the rail-road, when completed, will be about 135 miles; and according to a report made several months since, eighty-eight miles were then under contract. Several miles, extending from Charleston, were completed in 1830, and a steam-car has been placed upon it, moving at the rate of fifteen miles an hour.

South Carolina College, at Colombia, is a flourishing institution, and has been liberally patronised by the state. Colleges have been incorporated in Charleston, Abbeville district, in Beaufort, and in Winnsborough, but they have not taken a higher rank than academies. Free schools are established throughout the state,

and the sum of 37,000 dollars annually has been appropriated by the legislature for their support.

The Methodists in this state have 54 preachers and 25,114 members; the Baptists, 6 associations, 159 churches, 131 ministers, and 12,316 communicants; the Presbyterians, 77 churches, 46 ministers, 7 licentiates, and 6,671 communicants; the Episcopalians, 34 ministers; there are also some Associate Presbyterians, Lutherans, Roman Catholics, and Unitarians.

Districts and Seats of Justice.

Districts.	Seats of Justice.	Distance. C. ^a W. ^b		Districts.	Seats of Justice.	Distance. C. ^a W. ^b	
Abbeville, N. W.	Abbeville	100	534	Lancaster, N. . .	Lancaster, C. H. . .	73	442
Anderson, N. W.	Anderson, C. H. . .	129	550	Laurens, W. M. . .	Laurens, C. H. . .	79	498
Barnwell, S. W. .	Barnwell, C. H. . .	62	562	Lexington, M. . .	Lexington, C. H. . .	12	512
Beaufort, S. . . .	Coosawhatchie . .	147	613	Marion, N. E. . .	Marion, C. H. . . .	115	424
Charleston, S. E.	Charleston	110	544	Marlborough, N.	Marlborough, C. H.	102	426
Chester, N.	Chester, C. H. . . .	57	448	Newberry, W. M.	Newberry, C. H. . .	45	493
Chesterfield, N.	Chesterfield, C. H.	102	426	Orangeburgh, M.	Orangeburgh, C. H.	43	538
Colleton, S. E. . .	Walterborough . .	93	588	Pickens, N. W. . .	Pickens, C. H. . . .	157	550
Darlington, N. E.	Darlington, C. H.	86	435	Richland, M. . . .	COLUMBIA		500
Edgefield, W. . . .	Edgefield, C. H. . .	57	557	Spartanburgh, N.	Spartanburgh, C. H.	104	477
Fairfield, M. . . .	Winnsborough . . .	29	476	Sumter, M.	Sumterville	44	481
Georgetown, E. . .	Georgetown	134	482	Union, N.	Unionville	77	467
Greenville, N. W.	Greenville, C. H. . .	117	509	Wm'sburgh, E. . .	Kingstree	86	488
Horry, N. E. . . .	Conwayborough . .	150	459	York, N.	York, C. H.	78	432
Kershaw, M. . . .	Camden	33	467				

Population at different Periods.

Population.		Increase.		Slaves.	Increase.
In 1790,	249,073			107,094	
1800,	345,591	From 1790 to 1800,	96,518	146,151	39,057
1810,	415,115	1800	1810,	69,524	196,365
1820,	502,741	1810	1820,	86,626	258,475
1830,	581,459	1820	1830,	78,717	315,365

Population of the Districts and other Divisions, as given in the Census of 1830.

Abbeville district	28,134	St. Thomas and St. Dennis	3,055
Anderson ditto	17,170	St. Peter's parish	3,834
Barnwell ditto	19,236	St. Helena	8,799
Charleston city	30,289	St. Luke's	9,659
Charleston Neck	10,054	Prince William's	9,040
St. Andrews's parish	3,727	Chester district	19,182
St. John's Colleton	10,045	Chesterfield ditto	8,472
St. James, Goose Creek	8,632	Colleton ditto	27,256
St. Stephen's	2,416	Edgefield ditto	30,511
Christ Church	3,412	Fairfield ditto	21,546
St. James, Santee	3,743	Georgetown ditto	19,943

^a From Columbia.

^b From Washington.

Greenville district	16,476	Pickens district	14,475
Horry ditto	5,323	Richland ditto	11,465
Kershaw ditto	13,545	Columbia town	3,310
Lancaster ditto	10,361	Spartanburgh district.....	21,148
Laurens ditto	20,863	Sumter ditto	28,278
Lexington ditto	9,076	Union ditto	17,908
Marion ditto	11,208	Washington ditto	13,728
Marlborough ditto.....	8,578	Williamsburgh ditto	9,015
Newberry ditto.....	17,441	York ditto	17,785
Orangeburgh ditto	18,455		

Total population, 581,458. Slaves, 315,665.

Charleston, the largest town in the state, is situated on a peninsula, between the rivers Ashley and Cooper, which unite immediately below the city, and form a spacious and convenient harbour, communicating with the ocean at Sullivan's Island, seven miles south-east of the city. The harbour has a bar at its mouth, through which are two channels; the deepest has sixteen feet of water at low tide. It is defended by Fort Pinkney and Fort Johnson, which are on islands, the former two, and the latter four, miles below the city; and by Fort Moultrie, on Sullivan's Island. Charleston contains a city-hall, an exchange, a custom-house, a guard-house, a theatre, an orphan-house, a hospital, an alms-house, two arsenals, two markets, a college, and nineteen houses of public worship. The Charleston library contains about 13,000 volumes. The Orphan Asylum is a noble and well endowed institution which supports and educates nearly 200 orphan children. There are several other charitable societies richly endowed. The city is regularly laid out in parallel streets, which are intersected by others nearly at right angles. The tongue of land on which it is built was originally indented with creeks and narrow marshes, which have been filled up; and it is drier and more elevated than most parts of the low country of South Carolina. Many of the houses are elegant, and furnished with piazzas. It is much the largest town in the state, and was formerly the seat of government. It has an extensive commerce: the shipping owned here in 1816, amounted to 36,473 tons; in 1820, to 28,403 tons. That dreadful distemper, the yellow fever, has made frequent ravages in Charleston, but its effects have been chiefly confined to persons from more northern situations; and the climate of the city is accounted healthy to the native inhabitants, more so than that of most other Atlantic towns in the southern states. Its superior salubrity attracts the planters from the surrounding country, and it is the favourite resort of the wealthy from the West Indies. It affords much agreeable society, and is reckoned one of the gayest towns in the United States.

Columbia, the seat of government, is regularly laid out on an elevated plain on the banks of the Congaree. Georgetown is on Winyaw Bay, near the mouth of the



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Pedee, thirteen miles from the sea. It is well situated for trade, being in the neighbourhood of fertile lands, and connected by the Pedee and its branches with an extensive back country; but there is a bar at the mouth of Winyaw Bay which prevents the entrance of vessels drawing more than eleven feet water. Beaufort is on an island, seventy-two miles south-west of Charleston.

GEORGIA

Is bounded on the north by Tennessee, on the north-east by South Carolina, on the south-east by the Atlantic, by Florida on the south, and by Alabama on the west. It extends from longitude $80^{\circ} 50'$ to $86^{\circ} 6'$, and from latitude $30^{\circ} 30'$ to 35° . Length from north to south, 300 miles; mean breadth, 203; and area 61,000 square miles.

Georgia is divided by the hand of nature into three zones, with very distinct features. The lowest, and what may be called the tropical zone, rises by a very slow acclivity from the Atlantic Ocean, commencing in a series of islands. This is, in its oceanic margin, a recent alluvion; and is followed by a sandy tract of little more elevation, but reaching to the falls of the rivers. The third, or hilly and finally mountainous section, is the most extensive, fertile, and salubrious. From the level of the Atlantic Islands to the mountain vales of Chatahooche and Etowah Rivers, must be an elevation of 12 or 1500 feet; at the lowest an equivalent to 3° of latitude which, added to $4^{\circ} 38'$, gives a difference of $7^{\circ} 38'$ in temperature. The mountainous northern extremity rises into an elevation favourable to apples and the grasses; while the southern extremity on the Apalachicola, Suwanne, St. Mary's, Santilla, and Alatomaha, has a temperature suitable to the sugar cane, orange, olive, date, and lemon. Between those extremes vegetable production has an extensive range. To those already named, may be added cotton, rice, tobacco, and indigo; of fruits, the peach, fig, pomegranate, plum, &c. The sea border is a region of palms, and has a mean temperature at least two degrees above that of equal latitudes in the basin of Mississippi. In summer the Atlantic border is a real tropical climate, whilst towards North Carolina and Tennessee the mountain vales smile under a mitigated sun. Cotton, rice, and sugar may be regarded as its staples. The former has, however, so far predominated, the Atlantic islands producing a peculiar kind of superior value, that it might, without much error, be considered the exclusive staple of the state. The sweet orange and sugar cane can be cultivated with success along the whole ocean border, and for some distance inland.

In the northern part of Georgia there are interesting falls on the head waters of Savannah River. The river Terrora descends, in the space of a mile, 300 feet, and has one cataract of sixty feet nearly perpendicular. Toccoa Falls, on a small rivulet, are a beautiful cascade of 186 feet perpendicular.—The principal mineral

waters in Georgia are the Indian Springs, which are west of Milledgeville, and much visited; and Madison Springs, north-west of Athens. Valuable gold mines have been lately discovered in the northern parts of the state, near the sources of the Chatahoochee, Tallapoosa, and Coosa.

The University of Georgia consists of a college called Franklin College, established at Athens, and of an academy, either established or to be established, in each county. This body of institutions is under the direction of a Senatus Academicus, consisting of the governor and senate of the state, and fifteen trustees. The Senatus Academicus appoints a board of commissioners in each county, to superintend the academy of the county and the inferior schools. In 1817, 200,000 dollars were appropriated by the legislature for the establishment of free schools throughout the state. "In 1801," says Mr. Sherwood, "only six academies had been incorporated in the state." "The importance of education about 1811, seemed to be more appreciated; and academies sprang up in almost every town. Few persons born since that period are entirely destitute of education; but thousands who were brought into the world before 1800, know not a letter." The total number of academies is now nearly ninety.

The Baptists in this state have 12 associations, 390 churches, 205 ministers, and 31,797 communicants; the Methodists, 64 preachers and 27,038 members; the Presbyterians, 55 churches, 31 ministers, and 3,034 communicants; the Christians, 3 churches and 28 ministers; the Episcopalians, 4 churches and 4 ministers; the Roman Catholics, 3 churches and 3 ministers; there are also some Lutherans, Friends, and Jews.

Population of the Counties, and County Towns.

Counties.	Whites.	Coloured.	Total Population.	County Towns.	Distance.	
					M. ^d	W. ^e
Appling, S. M.	1,284	184	1,468	Appling, C. H.	125	787
Baker, S. W.	977	276	1,253	Byron	155	797
Baldwin, M.	2,724	4,565	7,289	MILLEDGEVILLE.....		642
Bibb, M.	4,138	3,005	7,143	Macon	35	677
Bolton, S. E.	723	2,416	3,139	Bryan, C. H.		
Bullock, E. M.	1,933	653	2,586	Statesborough.....	117	671
Burke, E.	5,066	6,767	11,833	Waynesborough	37	689
Butts, N. M.	3,225	1,687	4,912	Jackson	51	707
Camden, S. E.	1,458	3,120	4,578	Jeffersonton	212	744
Campbell, N. W.	2,694	629	3,323	Campbellton	134	715
Carroll, N. W.	2,723	696	3,419	Carrollton	153	746
Chatham, E.	4,325	9,905	14,230	Savannah.....	167	662
Clarke, N. M.	5,438	4,738	10,176	Watkinsville	69	623
Columbia, N. M.	4,471	8,135	12,606	Applingville	93	602
Coweta, N. W.	3,634	1,372	5,006	Newman	129	722
Crawford, W. M.	3,591	1,723	5,314	Knoxville.....	60	702
Decatur, S. W.	2,541	1,307	3,848	Bainbridge	206	848
DeKalb, N. W.	8,376	1,671	10,047	Decatur	117	680
Dooley, W. M.	1,787	348	2,135	Berrien,	97	739

^c Gazetteer of Georgia, second edition, 1829.

^d From Milledgeville.

^e From Washington.

Counties.	Whites.	Coloured.	Total Population.	County Towns.	Distance.	
					W. ^f |	W. ^s
Early, s. w.	1,505	546	2,051	Blakely	227	869
Effingham, E.	1,746	1,223	2,969	Willoughby	181	671
Elbert, N.	6,501	5,853	12,354	Elberton	101	579
Emanuel, E. M.	2,168	513	2,681	Swainsborough	79	633
Fayette, N. W.	4,268	1,233	5,501	Fayetteville	187	700
Franklin, N.	7,712	2,423	10,135	Carnesville	114	578
Glynn, S. E.	597	3,970	4,467	Brunswick	200	733
Greene, N. M.	5,026	7,525	12,551	Greensborough	41	628
Gwinnett, N. W.	10,938	2,282	13,220	Lawrenceville	93	656
Habersham, N.	9,733	915	10,648	Clarkesville	144	698
Hall, N. W.	10,573	1,182	11,755	Gainesville	123	626
Hancock, N. M.	4,607	7,215	11,822	Sparta	24	618
Harris, W.	2,831	2,274	5,105	Hamilton	134	776
Henry, N. W. M.	7,991	2,576	10,567	McDonough	85	687
Houston, W. M.	5,161	2,208	7,369	Perry	60	702
Irwin, S. M.	1,066	114	1,180	Irwin, C. H.	98	614
Jackson, N.	6,184	2,816	9,000	Jefferson	35	668
Jasper, M.	6,767	6,364	13,131	Monticello	52	644
Jefferson, E. M.	3,603	3,706	7,309	Louisville	22	665
Jones, M.	6,469	6,873	13,342	Clinton	47	689
Laurens, M.	3,188	2,390	5,578	Dublin	130	772
Lee, W. M.	1,367	307	1,674	Pindertown	202	692
Liberty, S. E.	1,588	5,646	7,234	Riceborough	100	570
Lincoln, N. M.	2,824	3,313	6,137	Lincolnton	187	829
Lowndes, S.	2,113	340	2,453	Franklinville	92	600
Madison, N.	3,365	1,261	4,626	Danielsville	187	720
McIntosh, S. E.	1,095	3,903	4,998	Darien	174	816
Marion, W. M.	1,327	109	1,436	Marion, C. H.	111	753
Meriwether, N. W.	3,018	1,406	4,424	Greenville	60	702
Monroe, M.	8,836	7,366	16,202	Forsythe	89	721
Montgomery, M.	934	335	1,269	Mount Vernon	44	648
Morgan, N. M.	5,146	6,877	12,023	Madison	120	762
Muscogee, W.	2,261	1,247	3,508	Columbus	60	662
Newton, N. W. M.	8,131	3,023	11,154	Lexington	86	725
Oglethorpe, N. M.	5,554	8,004	13,558	Zebulon	67	709
Pike, W. M.	4,362	1,694	6,056	Hartford	22	650
Pulaski, M.	3,117	1,782	4,899	Eatonton	174	611
Putnam, M.	5,512	7,744	13,256	Clayton	170	812
Rabun, N.	2,114	61	2,175	Randolph, C. H.	90	580
Randolph, W.	1,508	683	2,191	Augusta	144	634
Richmond, E.	5,163	6,481	11,644	Jacksonborough	112	754
Scriven, E.	2,387	2,380	4,767	Talbotton	47	615
Talbot, W.	3,839	2,101	5,940	Crawfordsville	115	757
Taliaferro, N. M.	2,162	2,770	4,934	Perry's Mills	111	753
Tatnall, E. M.	1,519	520	2,039	Jacksonville	235	877
Telfair, M.	1,569	567	2,136	Thomasville	133	752
Thomas, S.	2,127	1,169	3,296	Lagrange	37	697
Troup, W.	3,607	2,192	5,799	Upson, C. H.	87	729
Twigg, M.	4,495	3,534	8,029	Monroe	72	641
Upson, N. W. M.	4,444	2,569	7,013	Wareborough	161	776
Walton, N. W. M.	7,763	3,168	10,931	Warrenton	27	669
Ware, S.	1,132	62	1,194	Sandersville	190	721
Warren, N. M.	6,044	4,802	10,846	Waynesville	64	573
Washington, M.	5,905	3,915	9,820	Irwinton	20	662
Wayne, S. E.	676	286	962			
Wilkes, N. W.	5,265	8,972	14,237			
Wilkinson, M.	4,603	1,955	6,558			
Total.			516,567, of whom 217,470 are slaves.			

^f From Milledgeville.

From Washington.

TOPOGRAPHY OF

Population at different Periods.

Population		Increase.	Slaves.	Increase.
In 1749,	6,000			
1790,	82,548		29,264	
1800,	162,686	From 1790 to 1800,	80,138	59,699
1810,	252,433	1800 1810,	89,747	105,218
1820,	348,989	1810 1820,	88,456	149,656
1830,	516,567	1820 1830,	165,575	217,470
				67,814

Population of the principal Towns.

Savannah	7,303	Macon	2,609	Milledgeville	1,599
Augusta	6,696	Columbia	2,000	Athens	1,100

Savannah, the largest town, and the centre of commerce for the state, is on the Savannah River, eighteen miles from the bar at its mouth. Vessels drawing fourteen feet water can come up to the city; larger vessels receive their cargoes three miles below. Augusta is on the Savannah, just below the falls, 127 miles by land north of the Savannah. Large quantities of cotton and other produce are brought to Augusta from the back country, and carried down the river to Savannah. Milledgeville, the seat of government, is on Oconee River, near the centre of the state. Darien is on Alatamaha river, twelve miles from the bar at its mouth. It will probably soon be a place of importance, as it is the centre of commerce for the country on the Alatamaha and its branches, which is rapidly becoming populous. Sunbury, Brunswick, and St. Mary's, are on the sea-coast, south-west of Savannah. Petersburg is on the Savannah, fifty-three miles above Augusta. Washington is fifty miles north-west of Augusta. Athens is on a branch of the Oconee, about seventy miles north of Milledgeville.

ALABAMA

Is bounded on the north by Tennessee, on the east by Georgia, on the south by Florida and the Gulf of Mexico, and on the west by Mississippi. It extends from longitude 85° to $88^{\circ} 30'$, and from latitude $30^{\circ} 10'$ to 35° ; is 336 miles long, and 195 wide, containing 51,770 square miles.

Alabama, like several other states, is naturally divided into three zones; the northern, traversed by the south-western extremity of the Apalachian chain, and drained by numerous small rivers flowing into Tennessee, may be considered, if not mountainous, at least very broken, and most pleasantly diversified. The middle or central zone, drained by the various branches of the Coosa, Cahawba, Tuscaloosa, and Tombigbee rivers, gradually assumes a more level surface, and has a soil in general very inferior to the northern. The southern or Pine region is still less broken by hills than the central, and contracted by the western projection of Florida

to a strip of sixty miles wide, along Mobile Bay, terminates in the sandy alluvium of the Mexican Gulf.

Extending over almost five degrees of latitude, and rising from the level of the sea on the south to a considerable elevation, perhaps 1000 feet in the north, this state exhibits a marked difference of temperature. It touches rather than enters the region of the sugar cane, but admits in all its extent of the profitable cultivation of cotton. Fruits, from the fig to the apple, flourish abundantly; but even the southern section does not admit the successful production of the orange. Small grain is cultivated, though maize predominates as a crop. Cotton is the staple of the state, but might be superseded by tobacco or indigo, and perhaps by other vegetables. Alabama has been too recently settled to admit the full development of its metallic wealth; nor, except iron, do the known specimens promise great abundance. The climate is mild indeed, it might be with safety called delightful. Much of the soil is fertile, none utterly barren. By navigable rivers this state possesses great commercial advantages, though comprising only one direct outlet to the sea. Besides many of less note, Alabama is watered by the Tennessee, Tombigbee, Tuscaloosa, Alabama, Cahawba, Coosa, Talapoosa, and Conecuh rivers.

When Alabama was admitted into the Union in 1819, the government granted to the state, on certain conditions, one section, or the thirty-sixth part of every township, for the support of schools, and two townships for the establishment of an university. The prospects of the University of Alabama seem to be pleasing. In 1826, the number of acres appropriated for its benefit which had been sold, was 12,718; producing, with interest and rents, the sum of 276,956 dollars. There remained unsold, 33,361 acres, and it is supposed the proceeds of the whole will not be much short of 750,000 dollars.

Five per cent of the net proceeds arising from the sale of the public lands is appropriated to making roads and canals, and improving the navigation of rivers. As the condition of these grants, the state agrees that no lands belonging to the United States shall be taxed for any purpose for the term of five years from the day of sale, and that all the navigable waters within the state shall for ever remain public highways, free to all the citizens of the United States without any tax or toll. A water communication, to unite the Tennessee with the Alabama, is contemplated.

The Baptists in this state have 12 associations, 219 churches, 130 ministers, and 8,953 communicants; the Methodists, 44 preachers and 13,504 members; the Presbyterians, 38 churches, 27 ministers, 6 licentiates, and 1,669 communicants; the Roman Catholics, 9 ministers; the Episcopalians, 2 ministers.

TOPOGRAPHY OF

Population of the Counties, and County Towns.

Counties.	Population.	County Towns.	Distance.	
			T. ^b	W. ¹
Autauga, M.	11,872	Washington	129	869
Baldwin, S.	2,324	Blakely	228	1020
Bibb, M.	6,305	Centreville	39	837
Blount, N. M.	4,233	Blountsville	110	748
Butler, S. M.	5,634	Greenville	143	903
Clarke, S. M.	7,584	Clarksville	146	969
Conecuh, S.	7,444	Sparta	205	971
Covington, S.	1,522	Montezuma	187	947
Dale, S.	2,021	Dale, C. H.	242	1002
Dallas, M.	14,017	Cawhawba	96	886
Fayette, N. M.	3,470	Fayette, C. H.	50	874
Franklin, N. W.	11,078	Russellville	127	804
Greene, W. M.	15,026	Erie	47	896
Henry, S. E.	3,955	Columbia	260	872
Jackson, N. E.	12,702	{ Bellefonte	172	686
Jefferson, M.	6,855	{ Woodville	185	708
Lauderdale, N. W.	11,782	Elyton	59	799
Lawrence, N.	24,984	Florence	146	796
Limestone, N.	14,848	Moulton	102	779
Lowndes	9,421	Athens	130	751
Madison, N.	28,011	Lowndes, C. H.	138	882
Marengo, S. M.	7,742	Huntsville	155	726
Marion, N. W.	4,058	Linden	78	914
Mobile, S. W.	3,071	Pikeville	118	850
Mobile, city	3,194	{ Mobile	226	1083
Monroe, S. M.	8,780	Claiborne	157	949
Montgomery, S. M.	12,694	Montgomery	119	859
Morgan, N.	9,053	Somerville	135	751
Perry, M.	11,509	Perry, C. H.	61	865
Pickens, W.	6,620	Pickens	48	906
Pike, S. E.	7,103	Pike, C. H.	179	909
St. Clair, N. E. M.	5,975	Ashville	129	747
Shelby, M.	5,521	Shelbyville	73	803
Tuscaloosa, M.	13,646	TUSCALOOSA		858
Walker, N. M.	2,202	Walker, C. H.	47	834
Washington, S. W.	3,478	Washington, C. H.	146	982
Wilcox, S. M.	9,469	Canton	113	912
Total	308,997, of whom 117,294 are slaves.			

Population at different Periods.

Population.	Increase.	Slaves.
In 1810, less than 10,000		
1816, 29,683		
1818, 70,542		
1820, 127,901		In 1820, 41,879
1827, 244,041		1827, 93,008
1830, 308,997	From 1820 to 1830, 181,096	1830, 117,294

Mobile is on the western channel of the Mobile River, near its entrance into Mobile Bay. It is built on a high bank, in a dry and commanding situation; but the approach to the town for vessels drawing more than eight feet of water is difficult and

^b From Tuscaloosa.¹ From Washington.

circuitous. The country in the rear is unsettled pine woods. While this town was under the dominion of the French and Spaniards, it was a mere military post. When it came into possession of the United States, in 1813, it contained only 100 houses; but since the rapid progress of the settlements on the Tombigbee and the Alabama, an attempt has been made to make it the depot for the produce of the country on those rivers. There is, however, a vigorous rivalry between this place and Blakely. Blakely is on the Tensaw, or eastern outlet of the Mobile, ten miles east-north-east of Mobile. It is a new town, laid out in 1813, and has considerable advantages as an emporium for commerce. The same wind that enables a vessel to enter Mobile Bay will carry her to the wharfs of Blakely. Another advantage is an open road to the rapidly improving country on the Alabama. Vessels drawing twelve feet of water can enter the port at full tide. The town is abundantly supplied with excellent water.—Huntsville is a flourishing town in Madison county, on Indian Creek, ten miles north of the Tennessee. The surrounding country is fertile, and rapidly increasing in population.

MISSISSIPPI.

This state has for its northern boundary the state of Tennessee; for its eastern that of Alabama; its southern is formed partly by the Gulf of Mexico, and partly by Louisiana; and its western by Louisiana and the Arkansas territory; from which it is divided by the Mississippi. The state extends from longitude $88^{\circ} 30'$ to $91^{\circ} 50'$, and from latitude $30^{\circ} 08'$ to 35° . Length from north to south, 338 miles. Mr. Darby states that the area of this state has never been very accurately determined; but estimates it at above 51,000 square miles, with a mean width of 150 miles.

The state of Mississippi is washed on its western border by the Mississippi; the Tennessee touches the north-east angle, and the sources of the Tombigbee, Pascagoula, Pearl, Amite, Homochitto, and Yazoo, drain the interior. Apart from the islands of the Gulf of Mexico, the soil of Mississippi is divisible into three portions. First, the alluvial borders of the rivers; second, the bluffs adjacent to the Mississippi overflow; and third, pine forest land. The flat margin of the Mississippi on the left or east bank, is less valuable than similar soil on the opposite side. This difference is produced by the bluffs, confining the water, and subjecting the river border to more frequent and more durable inundation than takes place on the west side, where the waters are freely drained into remote swamps and outlets. Rising from the Mississippi alluvium, the bluffs are followed by a waving, productive country. This commences in Louisiana, as low down as Iberville, and, with the mere interruptions of the streams, stretches into Tennessee, with a width of from ten to thirty or forty miles. It may be doubted whether, every thing considered, the bluff zone of Mississippi is exceeded in value by any tract in the United States. In its

natural state, and so in great part it still continues, it was covered with a heavy forest, with a great variety of vines and underwood. In the primitive settlements near Natchez, tobacco, indigo, and cotton, have been successively staples, and all have been produced luxuriantly. The latter has prevailed within the last thirty years. Much excellent land exists along the streams over the whole state, and when brought under cultivation, produces similar vegetables with the bluff lands. The pine forest, with other interval land of various but inferior quality, constitutes the greater part of the surface of the state, and will preclude a dense population, except in detached places, unless objects of culture can be introduced suitable to the now useless soils.

What has been stated respecting the climate of Alabama, may be repeated with regard to that of Mississippi, except that, being more exposed to the winds of the north-west, the temperature of the latter is lower than that of the former in winter. Neither sugar-cane nor the orange can be cultivated above latitude 31° , nor nor even below that line to any advantage in the state of Mississippi. The winters are very unequal in point of temperature, and often severe in the vicinity of Natchez. Snow, more or less, occurs annually, and the thermometer has shown a depression* of the mercury to 12° above zero.

About one half of the territory of this state, embracing the northern and north-eastern parts, is in the possession of the Chickasaw and Choctaw Indians. In 1820, the Choctaws ceded to the United States a large tract, including all their lands on the Mississippi below the mouth of the Arkansas.

In the act of congress admitting this state into the Union, the government agreed, that, after paying a debt of 1,250,000 dollars to Georgia, and indemnifying certain claimants, five per cent of the net proceeds of the public lands lying within the state, shall be applied to roads and canals. As the condition of this grant, the state has provided, that the public lands shall be exempted from all taxes while belonging to the United States, and for five years from the day of sale; that lands belonging to citizens of the United States residing without the state, shall never be taxed higher than lands belonging to persons residing therein; and that the river Mississippi, and the navigable rivers or waters leading into the same or into the Gulf of Mexico, shall be common highways, and for ever free of toll or duty to all citizens of the United States. In 1829, a Board of Internal Improvement was organized by the legislature, consisting of the governor and three commissioners. The Board was authorized to employ a civil engineer, and to negotiate a loan of 200,000 dollars upon the credit of the state, to be appropriated to the improvement of the navigable streams and public roads.

The state has a Literary Fund, derived from "escheats, confiscations, forfeitures, and all personal property accruing to the state as derelict; fines, and pecuniary penalties,

and forfeitures, recovered of persons for the visitation of any penal statute, or for crimes and misdemeanors." No portion of this fund can be distributed till it shall amount to 50,000 dollars, except as much as shall be necessary for the education of the children of the poor. Increasing attention has of late been paid to the subject of education, and there are now several flourishing seminaries in this state.

The Methodists in this state have 23 preachers, and 5,918 members; the Baptists, 3 associations, 58 churches, 12 ministers, and 1,714 communicants; the Presbyterians, 25 churches, 21 ministers, 3 licentiates, and about 950 communicants; the Episcopalians, 4 ministers; and there are some Roman Catholics.

Population of the Counties, and County Towns

Counties	Population.	County Towns.	Distance.	
			J. ^k	W. ^l
Adams, s. w.	12,129	Natchez	112	1146
Natchez, city	2,790	Liberty	122	1156
Amite, s. w.	7,943	Port Gibson	67	1101
Claiborne, w.	9,818	Gallatin	53	1087
Copiah, s. w. m.	7,024	Williamsburgh	83	1087
Covington, s. m.	2,549	Meadville	105	1139
Franklin, s. w.	4,622	Leaksville	171	1046
Greene, s. e.	1,849	Pearlington	200	1135
Hancock, s.	1,961	JACKSON		1035
Hinds, m.	8,619	Raymond	19	1053
Jackson, s. e.	1,789	Jackson, C. H.	213	1073
Jefferson, s. w.	9,755	Fayette	93	1127
Jones, s. m.	1,471	Ellisville	134	1054
Lawrence, s. m.	5,321	Monticello	88	1120
Lowndes	3,342	Columbus	134	900
Madison, e.	4,973	Livingston	31	1066
Marion, s.	3,701	Columbia	120	1097
Monroe, e.	3,855	Hamilton	150	916
Perry, s. e.	2,285	Augusta	137	1063
Pike, s.	5,402	Holmesville	151	1128
Rankin, w.	2,034	Brandon	16	1051
Simpson, s. m.	2,666	Westville	56	1090
Warren, w.	7,861	Vicksburgh	54	1089
Washington	1,976	Princeton	119	1154
Wayne, e.	2,778	Winchester	165	1008
Wilkinson, s. w.	11,693	Woodville	148	1182
Yazoo, w.	6,550	Benton	64	1075

Population at different Periods.

The country now forming the states of Mississippi and Alabama was erected into a territorial government by the name of the Mississippi territory, in 1798, and so continued till 1817. Population in 1800, 8,850; in 1810, 40,352:—of Mississippi alone, in 1816, 45,929.

	Increase.	Slaves.	Increase.
In 1820, 75,448		32,814	
1830, 136,806	From 1820, to 1830, 61,358	65,659	32,845

^k From Jackson.

^l From Washington.

Natchez, the largest town, contained 2,184 inhabitants in 1820; in 1830, 2,790. Some of the other most considerable towns are Port Gibson, Vicksburg, Woodville, and Monticello.

LOUISIANA

Is bounded on the north by the Arkansas territory, on the east by the state of Mississippi, on the south by the Gulf of Mexico, and on the west by the Salina River, which separates it from Texas, a province of Mexico. It extends from longitude 89° to $94^{\circ} 5'$; its extreme southern point is in latitude $28^{\circ} 56'$, and its northern latitude, 33° . The longest line that can be drawn in Louisiana is from the mouth of the Mississippi to the north-west angle on Sabine, 380 miles; the irregular form renders a correct estimate of its mean width difficult, but 120 miles is not far from accurate; area, 48,220 square miles.

There is not, perhaps, on earth a continuous tract of equal extent, presenting a greater diversity than Louisiana. Within its limits are included all the varieties, from the most recent, and still periodically inundated alluvium, to hills approaching the magnitude of mountains; every quality of soil, from the most productive to the most sterile, and from unwooded plains to dense forests. All the southern part of this state is an alluvial tract of low champaign country, extending from Lake Borgne to Sabine river, and from the Gulf of Mexico to Baton Rouge and Red River,—about 250 miles long, and from seventy to 140 wide. This extensive tract is intersected by numerous rivers, bays, creeks, and lakes, dividing the country into a great number of islands. The country about the Balize is one continued swamp, destitute of trees, and covered with a species of coarse reeds, from four to five feet high; and nothing can be more dreary than the prospect from a ship's mast while passing this immense waste. A large extent of country in this state is annually overflowed by the Mississippi. According to Mr. Darby, the average width of overflowed lands above Red River, from latitude 31° to 33° north, may be assumed at twenty miles; equal to 2,770 square miles. Below latitude 31° to the efflux of the Lafourche, about eighty miles in extent, the inundation is about forty miles in width; equal to 3,200 square miles. All the country below the efflux of the Lafourche is liable to be inundated, equal to 2,370 square miles more. From this calculation it appears that 8,340 square miles are liable to be inundated by the overflowing of the Mississippi; and if to this be added 2,550 square miles for the inundated lands on Red River, the whole surface of the state liable to inundation will amount to 10,890 square miles. Of this extent, however, not one half is actually covered annually with water. The immediate banks of the streams are seldom, and many of them never inundated, and they afford strips of rich arable land, from a mile to a mile and a half wide.

Embankments are erected on the margin of the Mississippi, called levees, to pre-

vent the water from overflowing the plantations during the periodical floods. On the east side of the Mississippi the embankment commences above 125 miles above New Orleans, and extends down the river to Fort St. Philip. On the west shore it commences at the Atchafalaya, 239 miles above New Orleans. The levee is commonly about five feet high, and twelve feet in diameter at the base, with sufficient width at the top for a foot path; but at points where the current acts with greater force, it is sometimes fifteen feet high, and thirty feet at the base. As there is no stone to be had, the only material used is a soft clay. A crevasse is a breach formed in the levee by the waters of the river in time of inundation. "A crevasse," says Mr. Brackenridge, "rushes from the river with indescribable impetuosity, and a noise like the roaring of a cataract, boiling and foaming, and tearing every thing before it." When a crevasse occurs, the inhabitants for miles above and below instantly abandon every employment and hasten to the spot, where every exertion is made by day and night to stop the breach; their efforts are sometimes successful, but more frequently the hostile element is suffered to take its course, and the consequences are the destruction of the crop and the buildings; sometimes the land itself is much injured, the current carrying away the soil, or leaving numerous logs and trees which must be destroyed before it can again be cultivated.

From its southern latitude, it might seem reasonable to expect in Louisiana a very warm climate; and this has been reckoned upon to a greater extent than experience justifies. The winters are in fact more severe and the mean temperature lower than in higher latitudes by 2° on the Atlantic. In reality, as far as vegetation can decide the question, the seasons may be considered milder at Charleston, South Carolina, latitude $32^{\circ} 42'$, than at New Orleans in latitude 30° .

Sugar and rice are the staples of the state generally, below latitude 30° , and cotton above that line. The latter is cultivated in every section of the country, and sugar, partially, to near the northern boundary; but avidity of gain, in some instances, has instigated to an unprofitable struggle with the laws of nature. The whole produce of sugar in Louisiana, in the year 1828, was stated at 88,878 hogsheads of 1,000 pounds each; and the capital invested in sugar estates was estimated at 45,000,000 dollars; the number of sugar plantations, in 1827, being about 700. In fruits Louisiana is abundant; amongst those successfully cultivated may be mentioned, the apple in the northern parts: the peach, and the fig, of several species, over the whole state; the orange nearly commensurate with sugar cane; the pomegranate over the state, wherever attempted. Garden vegetables generally seem to have no assignable limit on a soil so varied, and in a climate so near the tropics. It may seem incredible that horticulture should be neglected in Louisiana, but such is the fact; and a fact the more unaccountable as some individual gardens would seem irresistibly alluring to imitation.

In April, 1831, the rail-road from New Orleans to Lake Ponchartrain was opened. It is four miles and a half long, perfectly straight, and its ascent and descent are only sixteen inches. The company are constructing an artificial harbour and break-water in the lake, at the end of the rail-road. These works have caused a great rise in the value of property in the vicinity.

The Roman Catholics are the most numerous religious denomination in this state, which is divided into upwards of 20 ecclesiastical parishes, most of which are provided with priests. The Baptists have 1 association, 28 churches, 14 ministers, and 1,021 communicants; the Methodists, 6 preachers and 1,573 members; the Presbyterians, 3 churches, 4 ministers, 1 licentiate, and 200 communicants; the Episcopalians, 3 ministers.

Table of the Parishes and Seats of Justice.

EASTERN DISTRICT.				
Parishes.	Populat.	Seats of Justice.	Distance.	
			N.O.m.	W.m.
Ascension, S. E. M.	5,400	Donaldson	75	1278
Assumption, S. E. M.	5,670	Assumption C. H.	90	1293
Baton Rouge, East, M.	6,717	Concordia		
Baton Rouge, West, M.	3,092	Baton Rouge	117	1237
Concordia, N. E.	4,662			
Feliciana, East, E. M.	8,247	Jackson	158	1193
Feliciana, West, E. M.	8,629	St. Francisville	149	1205
Iberville, S. E. M.	7,050	Iberville	98	1256
Jefferson, S. E.	6,846	Coquille	202	1149
Lafourche Interior, S.	5,500	Thibadeauxville	108	1311
Orleans, S. E.	3,793	NEW ORLEANS		
N. Orleans, city and suburbs	46,310			1203
Plaquemines, S. E.	4,489	Fort Jackson	75	1278
Point Coupee, M.	5,936	Point Coupee	154	1210
St. Bernard, S. E. M.	3,356			
St. Charles, S. E. M.	5,107			
St. Helena, E. M.	4,027	St. Helena	98	1212
St. James, S. E. M.	7,672	Bringier's	60	1262
St. John Baptist, S. E. M.	5,700	Bonnet Carré	36	1241
St. Tammany, E.	2,864	Covington	44	1159
Terre Bonne, S.	2,121	Williamsburg		
Washington, E.	2,286	Franklinton		1162
Total 155,318, of whom 80,421 are slaves.				
WESTERN DISTRICT.				
Avoyelles, M.	3,488	Marksville	240	1247
Catahoula, N. M.	2,576	Harrisonburg	251	1186
Claiborne	1,764	Russellville	441	1274
Lafayette, S.	5,606	Vermillionville	192	1351
Natchitoches, N. W.	7,926	Nachitoches	354	1328
Rapides, M.	7,559	Alexandria	272	1246
St. Landry, S. W.	12,552	Opelousas	192	1326
St. Martin's, S.	7,204	St. Martinsville	176	1366
St. Mary's S.	6,442	Franklin	141	1344
Washita, N.	5,140	Monroe	323	1258
Total 60,257, of whom 29,210 are slaves.				

^a From New Orleans.

^b From Washington.

THE UNITED STATES.

563

	Population.	Slaves.
Eastern District	155,318	80,421
Western District	60,257	29,210
Total of Louisiana	215,575	109,631

New Orleans, the capital, is regularly laid out on the left bank of the Mississippi, 104 miles from its mouth by the course of the river, and about ninety in a direct line. The streets are generally forty feet wide, and cross each other at right angles. On the streets near the river the houses are principally of brick, but in the back part of the town of wood. New Orleans is admirably situated for trade, being near the mouth of a river whose branches extend for thousands of miles in opposite directions, and open communications with the whole valley of the Mississippi. It is already one of the greatest emporiums of commerce in America, and the introduction of steam navigation on the Mississippi daily adds to its importance. The population has increased rapidly. In 1802, it was estimated at 10,000; in 1810, it was 17,242; in 1820, 27,146; and in 1830, 46,310.

Baton Rouge is situated on the left bank of the Mississippi, 138 miles above New Orleans, on the first considerable natural elevated bank which reaches that river above its mouth. This town contains about seventy houses, and 350 inhabitants. St. Francisville stands on an elevated bank near the mouth of Bayou Sara, and about one-fourth of a mile from the Mississippi, 170 miles above New Orleans. It is a thriving little village, and the mart of the adjacent country. Natchitoches, the largest town west of the Mississippi, is on Red River, 200 miles above its junction with the Mississippi. The French established it as a military post in 1717, and about one-third of its present inhabitants are of French origin. The population in 1818 was estimated at more than 600, exclusive of the garrison. Alexandria is a new and flourishing settlement on Red River, 120 miles from its mouth, and eighty miles below Natchitoches. Madisonville is on the north side of Lake Pontchartrain, twenty-seven miles north of New Orleans.

CHAPTER VI.

THE TERRITORIES.—ARKANSAS—FLORIDA—MICHIGAN—CHIPPEWAYAN DESERT—OREGON.

ARKANSAS.

THIS extensive territory is bounded by the state of Missouri on the north; the Mississippi River on the east; Louisiana on the south; and Texas and the western territories of the United States on the west. It lies between longitude 90° and 100° , and latitude $32^{\circ} 40'$ and $36^{\circ} 30'$. Greatest length from the Mississippi, 550 miles; mean breadth 220; area 121,340 square miles. It was erected into a territory in the year 1819.

Arkansas is naturally divided into three sections; the eastern or alluvial, towards the Mississippi; the central or mountainous, broken by the Ozark system; and the western or prairie. Proceeding westward from the Mississippi, an unbroken plain covered with a dense forest, is succeeded by a very gradual ascent partially forest and partially prairie, rising into hills of increasing elevation towards the west. A distinct chain of mountains rises in Missouri, and stretching south-west over Arkansas, terminates in Texas, towards the Rio del Norte. The western, interior, and prairie section of Arkansas, as extensive as both the preceding, if not more so, is properly the commencement of that ocean of grass which spreads from the forests of the Mississippi to the summits of the Chippewayan mountains. From these grassy plains issue those numerous confluent which form the great volume of the Arkansas River. The Canadian, a considerable stream formed by three branches, unites with the Arkansas proper at the western foot of the Ozark mountains, and these together form the second largest constituent branch of the Mississippi. Breaking through the mountains, the Arkansas rolls towards the Mississippi, but in a course of 300 miles receives no farther accession beyond the size of a large creek. The general features of this extensive region are defectively explored. The Ozark tract is supposed to be prolific in mineral treasures; in fact the lower lead mines of Missouri, at and around Potosi, belong to this region. Muriate of soda (common salt,) so much abounds in the western plains, as to render unfit for use the waters of Arkansas.

The Methodists in this territory have 7 preachers and 983 members; the Baptists, 1 association, 8 churches, 2 ministers, and 88 communicants; the Roman Catholics, several priests; the Presbyterians, 3 or four ministers; and the Episcopalians, 1 minister.

Population of the Counties, and County Towns.

Counties.	Population.	County Towns.	Distance.	
			L. R. ^a	W. ^b
Arkansas, E.	1,423	Arkansas	114	1064
Chicot, S. E.	1,165	Villefont	184	1134
Clark, E. M.	1,369	Clark C. H.	87	1155
Conway, E. M.	982	Harrisburg	40	1108
Crawford, M.	2,440	Crawford C. H.	136	1204
Crittenden, N. E.	1,272	Greenock	163	936
Hempstead, S.	2,507	Hempstead C. H.	130	1198
Hot or Warm Spring, M.	458	Warm Spring	60	1128
Independence, N.	2,032	Batesville	102	1044
Izard, N.	1,266	Izard C. H.	172	1114
Jackson	333	Litchfield		
Jefferson	772			
Lafayette, S.	748	Lafayette C. H.	182	1250
Lawrence, N. E.	2,806	Jackson	152	994
Miller, S. W.	358	Miller C. H.	228	1296
Monroe	461	Jacob's Staff	84	1034
Phillips, E.	1,152	Helena	124	1074
Pope	1,433	Scotia	81	1149
Pulaski, M.	2,395	LITTLE ROCK		1068
St. Francis	1,505	Franklin		
Sevier	636	Paraclifta	168	1236
Union	640	Corea Fabre		
Washington	2,181	Fayetteville	217	1285
Total.	30,383, of whom 4,578 are slaves.			

Little Rock, the seat of government of the territory, is situated on the south side of the Arkansas, in latitude 34° 44' north, and longitude 15° west of Washington. Cadron is situated on the north bank of the Arkansas, thirty-five miles above Little Rock. The post or town of Arkansas, is on Arkansas River, about thirty-five miles from its mouth in a straight line, but about sixty-five miles by the course of the river, which is remarkable for its numerous windings; in consequence of which boats generally proceed to the Mississippi by the White River, which communicates with the Arkansas by what is denominated the Cut-off, a deep though winding bayou. It is one of the most ancient settlements west of the Mississippi, having been established by the French before the beginning of the last century. Hopefield is a settlement on the Mississippi, nearly opposite Memphis in the state of Tennessee. Helena, the county-town of Phillips, is a thriving village, also on the Mississippi. Batesville, the seat of justice of Independence County, is on White River, and carries on a considerable trade in cotton and furs. Here is situated the land office for the northern district of the territory.

FLORIDA.

This territory is peninsular, having the Atlantic on the east, the Gulf of Florida on the south, and the Gulf of Mexico on the west; the states of Alabama and Georgia form the northern boundary. This is the most southern section of the Union,

^b From Little Rock.^c From Washington.

extending from latitude $24^{\circ} 40'$ to 31° ; its extremes of longitude are $80^{\circ} 25'$ and $87^{\circ} 20'$. Following a curved line along the peninsula, from Florida Point, and continuing to Perdido River, at north latitude 31° , the length of Florida is about 600 miles; mean breadth, 90; and area, 54,000 square miles.

Embracing six degrees of latitude, a considerable difference of seasons must be experienced in Florida; but from the general uniformity of surface, and from being enclosed on three sides by the sea, the transitions of temperature are seldom very rapid or violent. Florida is naturally divided into two very different zones by the twenty-eighth degree of latitude: above it the surface of the country is more broken, better timbered, and the soil of a superior quality; below it the land is in great part marshy, flat, and devoid of timber, the true palm-tree section of the United States. The thermometer in summer usually stands between eighty-four and eighty-eight degrees of Fahrenheit in the shade; and in July and August frequently rises to ninety-four degrees. The sun is scorching hot at noon. In winter it very rarely freezes, nor is the cold ever so severe as to injure the China orange. From the end of September to the end of June "there is not," says Volney, "perhaps, a finer climate in the world."

Florida abounds in vegetable productions of great variety, and of luxuriant growth. It is remarkable for the majestic appearance of its towering forest trees, and the brilliant colours of its flowering shrubs. Many rich fruits, particularly limes, prunes, peaches, grapes, and figs, grow wild in the forests. St. John's River and some of the lakes are bordered with orange groves; and olives are cultivated with success. Some of the most important productions to which the country is well adapted are sugar, coffee, cotton, rice, indigo, tobacco, vines, olives, oranges, and various other tropical fruits. Cultivation has been extended only to some very small tracts.

Population of the Counties, and County Towns.

Counties.		Population.	County Towns.		Distance. T. ^c W. ^d	
Florida. West	Escambia, N. W.	3,386	Pensacola	242	1050	
	Jackson		Marianna	77	927	
	Walton, W.		Alaqua	161	1011	
Middle Florida.	Washington, M.	6,092	Holmes' Valley	121	971	
	Gadsden, N. M.		Quincy	23	873	
	Hamilton, N. M.		Miccotown			
	Jefferson, N. M.	3,312	Monticello	29	925	
	Leon, N. M.		TALLAHASSEE		896	
	Madison		Hicktown			
East Florida.	Alachua, M.	2,204	Dell's	178	875	
	Duval, N. E.		Jacksonville	252	801	
	Mosquito		Timoka			
	Nassau, N. E.	1,511	Fernandina	313	776	
	St. John's, E.		St. Augustine	292	841	
	S. Florida. Monroe, S.		Key West			
Total		34,723, of whom 15,510 are slaves.				

^c From Tallahassee.

^d From Washington.

Tallahassee, the capital, was founded in 1824, between the rivers Oeklockonnee and St. Mark's, and twenty-three miles north of the Gulf of Mexico, in latitude $30^{\circ} 20'$, longitude $84^{\circ} 8'$. It was endowed with the proceeds of the lots of which the town is composed, to be invested in public buildings, and it is rising into importance with the settlement of the country. St. Augustine is a sea-port on the eastern coast, in latitude $29^{\circ} 51'$. It is regularly laid out, the streets intersecting each other at right angles. The houses are generally two stories high, and built of a peculiar kind of stone, a concretion of shells found near the sea shore. The situation is pleasant, fresh water abundant, the atmosphere dry and healthful. Invalids frequently resort thither for benefit. The soil in the vicinity is generally sandy, yet it produces oranges, corn, and esculent plants, in great perfection. The harbour is good but the bar at its mouth has only ten feet water; the anchorage outside the bar is also good. At St. Augustine is a strong fort, built by the Spaniards, capable of carrying sixty cannon, and extensive barracks, a court-house, and two stone churches, catholic and presbyterian. St. Augustine is estimated to contain a population of 1,400 souls. Pensacola is a sea port of the Gulf of Mexico, on the bay of the same name, nine miles from the sea. It stands on a dry sandy plain, elevated eighteen or twenty feet above the level of the water. The population amounts to about 2,000. It has a catholic church, and a navy-yard is about to be established by the United States in the vicinity.

MICHIGAN.

At the opposite extremity of the republic is another peninsular territory,—Michigan; not indeed rendered peninsular by the ocean, but by the fresh-water seas which divide the United States from the British provinces. This territory is bounded on the north by the Straits of Michilimakinac, on the north-east by Lake Huron, on the east by the St. Clair River, Lake St. Clair, Detroit River, and Lake Erie, on the south by the states of Ohio and Indiana, and on the west by Lake Michigan. It extends from longitude 82° to 86° , and latitude 35° to $45^{\circ} 20'$, having an area of 34,000 square miles.*

The peninsula of Michigan is composed chiefly of table-land, resting upon a bed of lime-stone and argillaceous sand-stone. The interior, towards the sources of the rivers, is generally level and interspersed with lakes and morasses. An inclined plain, about twenty miles in width, skirts the peninsula on the east, north,

* The preceding is that tongue of land which stretches northward from Indiana and Ohio, and is particularly designated the Territory of Michigan; but for temporary purposes, the United States government has connected with the peninsula an immense region, improperly called the North-west Territory, towards the sources of the Mississippi, and embraced within the following boundaries:—area, 140,000 square miles, equal to 89,600,000 acres, to which if we add the peninsular part, we have 174,000 square miles, or 111,360,000 acres. From the north-east angle of the state of Illinois to the north-west angle of Trans-Michigan, the territory is 650 miles long. The breadth is very irregular, but averages about 200 miles.

and west sides. The rivers towards their sources have a sluggish current; when they approach the declivity they become more rapid, but generally become sluggish again a few miles above their mouths. In the interior, particularly towards the north-west, there are extensive prairies; and marshes in many places border the mouths of the rivers; but more than seven-eighths of the whole peninsula is covered with a dense forest. The surface of the country along the eastern shore of Lake Michigan consists of sand-hills, sometimes covered with stunted trees and a scanty vegetation, but generally bare, and thrown by the wind into innumerable fantastic forms. This tract has been gained from the lake; and the land is still encroaching upon the water, every storm throwing up new quantities of sand. A large part of the soil is fertile and well adapted to the purposes of agriculture. The principal settlements are in the south-east; smaller settlements are at Michilimackinac in the north, and at Green Bay, west of the lake. But a small portion of the land has yet been purchased.

The climate is healthy, and usually, though probably fallaciously, accounted more mild than in similar parallels on the Atlantic.

The forest trees are of great variety. The wild rice, or wild oats, is a valuable natural production, covering the marshes near the margins of the lakes and rivers. The soil is well adapted to wheat, rye, oats, barley, flax, hemp garden vegetables, and grasses. No part of the United States is more abundantly supplied with fish, aquatic fowls, and wild game. The fish are of various kinds, but chiefly white fish and salmon-trout, both of exquisite flavour. The trout weigh from ten to seventy pounds.

This territory is favourably situated for commerce, being almost surrounded by navigable waters, which are expected before long to be connected with the Mississippi on one hand, and the Hudson on the other. The vessels that navigate the lake usually carry from ten to sixty tons. Detroit and Michilimackinac are ports of entry.

Population of the Counties and County Towns.

Counties.	Population.	County Towns.	Distance.	
			D. ^f	W. ^g
Berrien	323	Niles	179	651
Cass	928	Edwardsburg	169	643
Jackson		Jacksonopolis	88	563
Lenawee, S.	1,491	Tecumseh	63	512
Macomb, S. E.	2,414	Mount Clemens	26	552
Michilimackinac, N.	877	Mackinac	321	847
Monroe, S. E.	3,187	Monroe	36	490
Oakland, S. E. M.	4,910	Pontiac	26	552
St. Clair, E.	1,115	St. Clair	59	585
St. Joseph	1,313	White Pigeon Prairie		
Van Buren	5			
Washtenaw, S. M.	4,042	Ann Arbor	42	535
Wayne, S. E.	4,565			
Detroit, city	2,222	DETROIT		526

^f From Detroit.

^g From Washington.

COUNTIES WEST OF LAKE MICHIGAN.

Brown	964	Menomonie		
Chippewa	625	Sault de Ste. Marie	356	882
Crawford	692	Prairie du Chien	598	1060
Iowa	1,589	Helena		
Total.	31,260, of whom 27 are slaves.			

Detroit, the capital of the territory, is on Detroit river, nine miles from Lake St. Clair. It was settled as early as 1683, by the French from Canada, for the purposes of the fur trade. At present its trade is chiefly with Ohio and New York, and with the military posts on the upper lakes. In 1818, the amount of shipping was 849 tons. The fort is a regular work, with parapets and bastions, and surrounded by palisadoes, a deep ditch, and a glacis. In 1820, the population was 1422. Michilimackinac, commonly called Mackinaw, is on an island of the same name, in the straits of Michilimackinac. The island is about nine miles in circumference, and the village is on the south-east side of it, on a small cove, which is surrounded with a steep cliff 150 feet high: on the top of the cliff stands the fort. Behind the fort, at the distance of half a mile, is another summit, 150 feet higher, and 300 feet above the level of the lake, on which Fort Holmes is erected; from this spot there is an extensive prospect over Lakes Huron and Michigan. During the summer, Mackinaw is the resort of many Indians and fur traders. Fort Gratiot is a military post on St. Clair River, and defends the entrance into Lake Huron. The Sault de St. Marie is of importance as a military and trading post, being at the head of ship-navigation on the great lakes, and the grand thoroughfare of Indian communication for the upper countries, as far as the arctic circle, all the fur trade of the north-west being compelled to pass through it. The government of the United States resolved to occupy this post, and in June, 1820, obtained from the Chippewayan Indians the cession of a tract of land four miles square, commencing at the Sault, and extending two miles up, and the same distance down, with a depth of four miles.

CHIPPEWAYAN DESERT—OREGON.

The entire extent of the North-American republic is far from being comprehended in the states and territories which have now been described. In addition to these is the wide expanse of the Chippewayan Desert, to the westward of Missouri, Illinois, and Michigan; and the district of Oregon, lying between the Chippewayan Mountains and the Pacific Ocean. Although subject to the dominion of the United States, and constituting a portion of its territory, its government in these regions has rather a nominal than a real existence. It does not appear to have any magisterial representation, or any judicial officer; nor have the scattered inhabitants of this waste a voice in national affairs, or a civil existence of any degree. In full possession of personal

liberty, they roam or rest in these almost boundless regions, while here and there a military station is the only signal of authority, and preventive of wrong. As may be supposed, the tenants of the wild are comparatively few, and of a daring and lawless character. Some are allured by the profits to be derived from the pursuit of the chase; and others by the congeniality of such a life with a reckless and adventurous spirit.

The whole region possessed by the United States, westward of the Chippewayan range, is comprehended under the name of Oregon. The waters that rise on the western declivities of these mountains flow into the Columbia, the Multnomah, and the Lake Bueneventura. Most of the elevated summits of the mountains are above the limits of perpetual congelation. Beyond the mountains the country descends by regular belts in the form of immense terraces, or descending plains, disposed regularly, the one below the other. Beyond the first plain, and between the Rocky Mountains and the Pacific, is another extensive and high chain of mountains in which are the great falls of the Columbia. Still west of these, and running parallel with the coast, and at the distance of 150 miles, is the third and last chain. The peaks of all these chains are covered with perpetual snow. The highest peaks have been named Mount Baker, Mount Regnier, Mount St. Helens, Mount Hood, and Mount Jefferson. The only rivers explored in this region are the Columbia and its branches.

Being sheltered on the north by protecting ridges of mountains, and the breezes from the west being softened by coming over an immense extent of sea, the climate is as mild as it is in the country east of these mountains, four or five degrees to the southward. Langsdorf describes the country on the southern limit as the country of oranges and figs, of verdure, health, and fertility. We scarcely remember to have seen more sober pictures of a desirable country than those drawn by him of that region; they correspond with the accounts of Lewis and Clark, as well as those of other travellers, who have explored it. When the intelligent and intrepid adventurers we have just named left the country, in March, and in the latitude of Montreal, the prairies were in blossom, and the forwardness of the season seems to have corresponded with that of North Carolina at the same time. The winters are rainy, and some parts of them severe.

This country was discovered by the Spaniards. In 1791, Captain Gray, of the ship *Columbia*, of Boston, entered the river, and from his ship it received its name. It was occasionally entered by navigators afterwards. In 1805, Lewis and Clark descended this river from the mountains to the Pacific, and spent the winter on its shore. They returned by the same river to the mountains; and most of the exact information that we have respecting the country, is derived from them. For some years a settlement of fur traders, called Astoria, has existed here; and the chief intercourse of this place is with China. In the neighbourhood of Astoria is a military

post, called Fort Classop, or Fort George. The question of permanently settling this delightful country has been more than once debated in Congress. Were such settlements authorised, and rendered secure by the requisite military establishments, there can be no doubt it would receive larger accessions of emigrants. The numbers of the different tribes are estimated at 14,000.

In the description of the different States we have, for the sake of compression, omitted the particulars of the rivers and lakes, and some other portions of natural geography, of which a general account has already appeared in the first part of this volume. We trust that satisfactory information has been conveyed, alike interesting to those who delight to make the field of nature their study, and important to those who contemplate a removal to this prosperous republic of the western hemisphere.

CHAPTER VII.

It has been remarked in the foregoing pages, that the estimates, descriptions, and calculations offered, as well as the opinions and predictions hazarded, have reference to, or are based on the state of things which existed in 1830, a date down to which many valuable statistical returns were completed, and to which several elaborate reports of committees of Congress were brought. From the course of events changes of more than ordinary magnitude and importance have since occurred. Of these it will now be our task to notice the most prominent. The reader has not to learn that during many years a dispute continued between the successive governments of England and the United States on the subject of the boundary line, which was at length terminated in a manner satisfactory to both nations, through the exertions of Lord Ashburton.^a Under the treaty thus conducted, it was definitively settled and minutely described.^b

In the historical portion of this work, the discussions of which the Oregon territory became the subject between Great Britain and America, and the principal conditions of the treaty by which a pacific arrangement was effected, will be found in the proper place.^c

Of Texas, some details which would have been out of their place in the first volume, which professed to give a history of the United States, may not be unacceptable here, now that Texas, it has been seen, has been annexed to the great republic of North America.

The history of a country, before some degree of civilization has been effected, is necessarily meagre, confused, and devoid of interest. The extravagance and errors of tradition mislead and bewilder more than they inform. If the Spanish accounts are entitled to credit, the immense tract of land known as Texas was over-run by wild animals, and small tribes of Indians, not less brutal than their quadruped neighbours. Various writers describe the Texian Indians to be a peculiarly savage

^a See vol. i., p. 851.

^b See vol. i., p. 860.

^c *Ibid.*

race. They appear to have been cannibals, and their cruelties compelled their neighbours of European origin to take up arms against them. A shocking account is given of the course of the warfare which ensued, and the writer, after describing the anguish of a young and beautiful mother, whose infant was snatched from her arms, tossed up, and caught, as it fell, by an Indian on his spear, proceeds to relate the bloody victory obtained over them; after which, he states that, in riding over the battle-ground, they observed a crowd of Tonkuhuas (Indian allies of the Texians) "gathered around the fallen Comanche chief, and busily engaged in cutting off his *hands* and *feet*, and the choicest pieces of flesh from his body; and with perfect indifference attaching it by strings to their saddles, with the buffalo and venison they had prepared for their expedition. The next morning," he continues, "we found the Tonkuhuas broiling and eating the fat yellow flesh of the Comanches for their breakfast, reserving the feet, hands, &c., for their squaws. We drew near their camp-fire, and Placedore, the chief, holding up to us a nice piece of broiled Indian, cried out in broken Spanish, '*Comanche mucha wano*,' which meant that the Comanche was very good!"

If some doubt attaches to disparaging representations, supposed to emanate from men who had dispossessed, or wished to dispossess wild men of their lands, candour must own that the past history of the world renders but too probable such enormities. No brute of the forest is so coldly cruel as man in a savage state.

"Prior to 1690," says Mr. Ikin, "Texas formed a remote and merely nominal part of the conquest of Cortes, inhabited only by predatory Indian tribes, from the principal of which, the Comanches, it is said to have received its appellation of Texas, pronounced gutturally *Yaygh-has*, which, in Comanche language, is understood to signify paradise, *i.e.*, 'happy hunting-ground.'

"The French, who seem ever to have entertained a special leaning towards this territory, first aroused the attention of Spain to its neglected condition, by taking possession of it (1685) in the name of the French king, and establishing a colony in Matagorda Bay.

"In 1689, an expedition under Alonzo de Leon, drove out these intruders; and in 1690 the Spaniards made their permanent settlement in Texas, which was the 'mission,' or monastic establishment of San Francisco. Several other missions were soon after raised, three or four of which, holding out to settlers the protection of a fort, as well as the benefit of a church, became the nuclei around which gradually grew well-built and considerable towns.

"Most of these edifices, which were formed of stone, remain more or less entire; many of them possessing much architectural beauty, and imparting to the landscape a feature of the picturesque, unknown to the more northern parts of America.

"The first settlers were monks, soldiers, and a small colony from the Canaries;

though their present descendants show as much of the Indian mixture as in other parts of Mexico. The cultivation of small, but fruitful fields, and the tending of large herds of cattle, formed their easy occupation; in which, and in the enjoyment of their cigaritos, siestas, fandangos, and monté tables, for more than a century, little occurred to disturb them, save the molestations of the Indians, who, invited by the champaign character of the country, soon became experienced horsemen, frequently robbed and murdered the Spanish muleteers, and sometimes even attacked the settlements."

The picture thus furnished is not a very captivating one, but it is not much more unfavourable than representations obtained from some other sources. The aboriginal inhabitants of the soil were not greatly improved by those who joined them from other countries, of whom not a few were only induced to go there because it was unsafe for them to stay at home.

Its limits we find thus described by Mr. Kennedy, and his general view of the country ought in fairness to be placed in juxtaposition with less flattering reports.

"Texas, previous to attaining the rank of an independent state, formed an outlying section of the Mexican republic, which republic, embracing the territory formerly comprised in the vice-royalty of New Spain, was bounded, to the east and south-east, by the Gulf of Mexico and the Carribean Sea; to the west by the Pacific Ocean; to the south by Guatemala; and to the north, by the States of the Anglo-American Union."

To this country many settlers resorted, and, as has been seen, events led to the annexation of Texas to the United States of North America. The causes which led to this have been partly explained. It will easily be conceived that the new settlers were viewed with no very favourable eye by the Mexican government. The growing disaffection broke out into an open revolt, which the Mexicans strove in vain to suppress. They experienced a defeat; their General Santa Ana was made prisoner, and Texas, claiming to be a sovereign state, put forth the following

Declaration of Independence made by the Delegates of the People of Texas, in general Convention, at Washington, on March 2, 1836.

"When a government has ceased to protect the lives, liberty, and property of the people, from whom its legitimate powers are derived, and, for the advancement of whose happiness it was instituted; and so far from being a guarantee for their inestimable and inalienable rights, becomes an instrument in the hands of evil rulers for their oppression;—when the federal republican constitution of their country, which they have sworn to support, no longer has a substantial existence, and the whole nature of their government has been forcibly changed, without their consent, from a restricted Federative Republic, composed of sovereign states, to a consolidated central

military despotism, in which every interest is disregarded but that of the army and the priesthood, both the eternal enemies of civil liberty, the ever ready minions of power, and the usual instruments of tyrants;—when long after the spirit of the constitution has departed, moderation is at length so far lost by those in power, that even the semblance of freedom is removed, and the forms themselves of the constitution discontinued; and so far from their petitions and remonstrances being regarded, the agents who bear them are thrown into dungeons, and mercenary armies sent forth to enforce a new government upon them at the point of the bayonet;—when, in consequence of such acts of malfeasance and abduction on the part of the government, anarchy prevails, and civil society is dissolved into its original elements—in such a crisis, the first law of nature, the right of self-preservation, the inherent and inalienable right of the people to appeal to first principles, and take their political affairs into their own hands in extreme cases, enjoins it as a right towards themselves, and a sacred obligation to their posterity, to abolish such government, and create another in its stead, calculated to rescue them from impending dangers, and to secure their welfare and happiness.

“Nations, as well as individuals, are answerable for their acts to the general opinion of mankind. A statement of a part of our grievances is therefore submitted to an impartial world, in justification of the hazardous but unavoidable step now taken, of severing our political connexion with the Mexican people, and assuming an independent attitude among the nations of the earth.

“The Mexican government, by its Colonization Laws, invited and induced the Anglo-American population of Texas to colonize its wilderness under the pledged faith of a written constitution, that they should continue to enjoy that constitutional liberty and Republican government to which they had been habituated in the land of their birth, the United States of America.

“In this expectation they have been cruelly disappointed, inasmuch as the Mexican nation has acquiesced in the changes made in the government by General Antonio Lopez de Santa Anna, who, having overturned the constitution of his country, now offers to us the cruel alternatives, either to abandon our homes, acquired by so many privations, or submit to the most intolerable of all tyranny, the combined despotism of the sword and the priesthood.

“It hath sacrificed our welfare to the State of Coahuila, by which our interests have been continually depressed through a jealous and partial course of legislation, carried on at a far distant seat of government, by a hostile majority, in an unknown tongue; and this, too, notwithstanding we have petitioned, in the humblest terms, for the establishment of a separate State government, and have, in accordance with the provisions of the National Constitution, presented to the General Congress, a Republican Constitution, which was, without just cause, contemptuously rejected.

"It incarcerated in a dungeon, for a long time, one of our citizens, for no other cause but a zealous endeavour to procure the acceptance of our Constitution, and the establishment of a State government.

"It has failed and refused to secure, on a firm basis, the right of trial by jury, that palladium of civil liberty, and only safe guarantee for the life, liberty, and property of the citizen.

"It has failed to establish any public system of education, although possessed of almost boundless resources (the public domain); and although it is an axiom in political science, that unless a people are educated and enlightened, it is idle to expect the continuance of civil liberty, or the capacity for self-government.

"It has suffered the military commandants, stationed among us, to exercise arbitrary acts of oppression and tyranny, thus trampling upon the most sacred rights of the citizens, and rendering the military superior to the civil power.

"It has dissolved, by force of arms, the State Congress of Coahuila and Texas, and obliged our representatives to fly for their lives from the seat of government, thus depriving us of the fundamental political right of representation.

"It has demanded the surrender of a number of our citizens, and ordered military detachments to seize and carry them into the interior for trial, in contempt of the civil authorities, and in defiance of the laws and the constitution.

"It has made piratical attempts upon our commerce, by commissioning foreign desperadoes, and authorising them to seize our vessels, and convey the property of our citizens to far distant parts for confiscation. It denies us the right of worshipping the Almighty according to the dictates of our own conscience, by the support of a national religion, calculated to promote the temporal interest of its human functionaries, rather than the glory of the true and living God.

"It has demanded us to deliver up our arms, which are essential to our defence—the rightful property of freemen—and formidable only to tyrannical governments.

"It has invaded our country both by sea and by land, with intent to lay waste our territory, and drive us from our homes; and has now a large mercenary army advancing to carry on against us a war of extermination.

"It has, through its emissaries, incited the merciless savage, with the tomahawk and scalping knife, to massacre the inhabitants of our defenceless frontiers.

"It has been, during the whole time of our connexion with it, the contemptible sport and victim of successive military revolutions, and hath continually exhibited every characteristic of a weak, corrupt, and tyrannical government.

"These and other grievances were patiently borne by the people of Texas, until they reached that point at which forbearance ceases to be a virtue. We then took up arms in defence of the national constitution. We appealed to our Mexican

brethren for assistance; our appeal has been made in vain; though months have elapsed, no sympathetic response has yet been heard from the interior. We are, therefore, forced to the melancholy conclusion, that the Mexican people have acquiesced in the destruction of their liberty, and the substitution therefore of a military government; that they are unfit to be free, and incapable of self-government.

"The necessity of self-preservation, therefore, now decrees our eternal political separation.

"*WE, therefore, the delegates, with plenary powers of the people of Texas, in solemn convention assembled, appealing to a candid world, for the necessities of our condition, do hereby resolve and declare that our political connexion with the Mexican nation has for ever ended, and that the people of Texas do now constitute a FREE, SOVEREIGN, and INDEPENDENT REPUBLIC, and are fully invested with all the rights and attributes which properly belong to independent nations; and conscious of the rectitude of our intentions, we fearlessly and confidently commit the issue to the Supreme Arbiter of the destinies of nations.*

"In witness whereof, we have hereunto subscribed our names.

"RICHARD ELLIS, President and Delegate from Red River."

The Texian government endeavoured to establish amicable relations with the governments of Europe, and diplomatic agents were sent to France, England, and other countries. The boundary of Texas, as claimed by the republic, was specified in a short Act of Congress; approved by president Houston, December 19th, 1836, which runs thus:—"Be it enacted by the Senate and House of Representatives of the Republic of Texas, in Congress assembled: That, from and after the passing of this Act, the civil and political jurisdiction of this Republic be, and is hereby declared to extend to the following boundaries; to wit:—Beginning at the mouth of the Sabine river, and running west along the Gulf of Mexico, three leagues from land, to the mouth of the Rio Grande, thence up the principal stream of said river to its source, thence due north to the forty-second degree of north latitude, thence along the boundary line as defined in the treaty between the United States and Spain, to the beginning: and that the President be, and is hereby authorised and required to open a negotiation with the government of the United States of America, so soon as, in his opinion, public interest requires it, to ascertain and define the boundary line as agreed upon in the said treaty."

CHAPTER VIII.

POWER was vested in the President of Texas, we learn from Mr. Kennedy, by an act passed 12th of June, 1837, to appoint a commissioner to co-operate with one to be named by the government of the United States, for the purpose of running and marking the boundary line between the two countries, "from latitude 32° north on the Sabine river, to the Rio Roxo, or Red River," according to the treaty of 22nd of February, 1819, between the United States and Spain. A convention with this view, concluded between the United States and Texas, at Washington, on the 25th of April, 1838, having been ratified by both governments, an act was passed by the Texian Congress, 23rd of November, 1839, repealing the law of June, 1837, and providing funds for carrying the object of the convention into effect. Commissioners duly appointed commenced the execution of the duty assigned them in the spring of 1840. The following is the line of demarcation provided by the treaty of limits agreed upon by Spain and the United States in 1819:—

"Beginning at the mouth of the river Sabine, on the Gulf of Mexico, following the course of the said river to the northernmost point of the bend between longitude 101° and 102° , by the shortest line to the southernmost point of the bend of the river Arkansas, to its source; thence, due north, following the 42nd parallel of latitude to the South Sea. The treaty conceded to the subjects of Spain the right of navigating the Red River and the Arkansas, to their mouths in the Mississippi, and the latter river and the Sabine to the sea."

"The treaty of 1819," says Mr. Kennedy, "between the United States and Spain was recognised and confirmed by a treaty of limits between Mexico and the United States, concluded on the 12th of January, 1828, and a convention was subsequently entered into for surveying and settling the boundary line; but, in consequence of delay on the part of Mexico, her civil dissensions, and the revolution in Texas, the stipulations of the convention were never carried into execution.

"Within the limits of the Republic of Texas, as defined by the Boundary Act of

December 19, 1836, were included parts of Tamaulipas, Coahuila, and New Mexico. The section of country between the river de las Nueces, and the Rio Grande is a valuable tract of land; whereas the Mexican side of the latter river, comprehending part of Tamaulipas, New Leon, Coahuila, and Durango is, with the exception of a few favoured spots, destitute of wood and water, rocky and incapable of improvement. The mountainous tract called the Balson de Mapima, comprising more than 3000 square leagues, and indented into the territory of Durango and Coahuila, is a desert, uninhabited save by tribes of roving and independent Indians. New Mexico, or Santa Fé territory, extends along the Rio Grande from 31° to 38° of north latitude. This territory is fertile, but very thinly inhabited, and exposed to the predatory incursions of the Indians. It contains three towns, Santa Fé, Taos, and Albuquerque, besides a number of villages. It is to be remarked, that the title of the Republic of Texas to lands extraneous to the boundaries of the state at the period of the revolution, has yet to be formally perfected by treaty with Mexico. For all practical purposes, however, the limits have been determined by the Act of the Texian Congress in 1836.

“The course of the rivers of Texas, which run nearly parallel to each other, indicates the general surface of the country to be an inclined plane, sloping towards the south-east.

“The extent of coast from the river Sabine to the Rio Grande, which constitute the extreme points of the maritime limits claimed by the Republic is about 400 miles.

“The soil of Texas presents three distinct natural aspects, by which it is divisible into a corresponding number of regions, or districts; the plain, or level, the undulating or rolling, and the mountainous or hilly.

“THE LEVEL REGION is described to extend along the coast from the Sabine to the Rio Grande; increasing in its progress from 30 miles to 70, between the Sabine and the San Jacinto. Midway on the Colorado, it stretches to 100, and then is gradually narrowed towards the Nueces. To this region succeeds the rolling country of the interior, stretching westward and northward to the hilly tract, distant from 150 to 200 miles from the low level lands.

“Eastern Texas has a very unequal surface; the hills are few and of moderate elevation; crossing them, we reach immense plains, which extend to the confines of New Mexico and Chihuahua, and away to the north and north-west, beyond the Red River and Arkansas.

“The country to the north and west of Lake Sabine is flat and woody; on the south-west, between Lake Sabine and Galveston Bay, it is a dull and generally barren prairie, destitute of trees, except on the margin of the water-courses. Beyond the north-east point of Galveston the landscape improves, and a large extent of

gently-sloping prairie, agreeably diversified by skirts of timber across the woody bottom of the Trinity River, except in the neighbourhood of Galveston. The prairie there is for the most part wet and sterile. Fine rolling lands are found on the river San Jacinto, and Buffalo Bayou. From Galveston Bay to the Brazos River it is one unbroken plain, rather low and sandy on the coast, but relieved towards the interior by insulated groves and timbered streams. From the east side of the broad "bottom," or alluvium, of the Brazos, to the west side of Caney Creek, it is for the most part woody, and interspersed with large cane-brakes. On the north side of this section, down the west bank of the Brazos, the prairie opens as far as a point at the town of Columbia."

To Mr. Kennedy the soil of Texas appeared to offer no small allurements to emigrants. He says:—

"A rich and magnificent prairie, uninterrupted, save by clumps and skirts of timber on the streams, extends on both sides of the Colorado, from Caney Creek to the Navidad River. Advancing west of the Navidad the soil is a light sandy prairie, sloping towards the north and west, and to the south and south-east a continuous level. The shores of Matagorda, Aransaso, Espirito Santo, and Nueces Bays, are higher than the margins of the bays lying farther eastward; and the rivers which there discharge their waters into the gulf invite the stranger in search of a fertile settlement to journey inland, where he is certain to obtain the fulfilment of his hopes and wishes.

"The prevailing character of the soil of the level region of Texas is a rich alluvium, singularly free from those accumulations of stagnant water which, combined with a burning sun and exuberant vegetation, render a large proportion of the southern parts of the United States little better than a sickly desert. The porous character of the soil, the gradual elevation of the level lands towards the interior, and the general rise of the banks from the beds of the streams, preclude the formation of swamps to any injurious extent."

It will strike many readers that representations much less favourable have been made of the prospects open to the settler at Texas. To one or more of these attention will in due time be called. For the present, confining ourselves to Mr. Kennedy, we may state that he describes the rolling, or undulating region, to form the largest of the natural divisions of the country. It is situated to the north and north-west level section lying between the Sabine and San Jacinto Rivers; the country undulates towards the Red River. "The thickly-timbered lands extend quite to the Red River, and as far to the west as a line drawn due north, from the heads of the Sabine. A wide belt of rolling and thinly-wooded prairie extends westward of this line along the margin of the Red River."

He further reports that "the country rises in gentle and beautiful undulations

above the alluvial region of the Brazos, Colorado, and Guadalupe. They stretch in a north-westerly direction, from 150 to 250 miles, as far as the hilly district." "Here," he adds, "is a delightful variety of fertile prairie and valuable woodland, enriched with springs and rivulets of pure and sparkling water, which, like the larger streams, are invariably bordered by wooded 'bottoms.' The undulations often swell at lengthened intervals into eminences of soft acclivity, from the summits of which the eye may repose on some of the fairest scenes in nature.

"The rolling lands between the Guadalupe and Nueces sweep towards the north-west, with an elevation gradually increasing until they terminate in the highland range, at a distance of about 200 miles from the level region of the coast. Timber and water are not so abundant in this section as in the country lying further east, but it affords excellent pasturage, and is peculiarly adapted to the raising of all kinds of stock."

Than scenes like this, it is difficult to conceive anything more inviting to those whom an adventurous spirit, or the troubled state of Europe may dispose to seek a home beyond "the western wave." The mountainous region cannot present like attractions. This is considered part of the Sierra Madre, that great chain which, broken at the junction of the rivers Puerco and Rio Grande, and taking a north-easterly course, reaches Texas Proper at the sources of the river Nueces, and passes thence to the head waters of the San Saba, a tributary of the Colorado, and, taking its course eastward down the San Saba, it crosses the Colorado and is lost in the woodlands of the Upper Brazos, between the river of which name and the Sabine the country is rolling or level. Spurs of this mountain-range extend southward and in a westerly direction. The mountains are said to be of third and fourth magnitude in point of elevation: those of San Saba are deemed the highest. They are clothed with forests of pine, oak, cedar, and other trees, with a variety of shrubs. Extensive valleys of alluvial soil are found in this vicinity; most of them susceptible of irrigation, and capable of being properly cultivated. The sides of the mountains, and frequently the summits, invite agricultural labour. Springs abound in the high lands, forming innumerable rivulets, which eventually swell into large rivers, "which," says our author, "scatter plenty over the central and western districts of the Brazos and Bexar."

In the years 1833, 1834, and 1835, a York Land Company sent out emigrants, who were settled under an Empresario grant, at a settlement called Dolores, on the Rio Grande. Mr. Egerton, the company's surveyor, in a report which he made, represented the banks of the Rio Grande to be well adapted to farming; and described the whole country, between that river and the Medina, as not to be surpassed for the raising of stock. The land was flat and rich in pasturage,

out rather deficient in water, as there were no considerable streams between the Nueces and the Rio Grande.

"Such," Mr. Kennedy adds, "are the general features of Texas, the first appearance of which is unfavourable from whatever point it may be approached. If by sea, a low sandy beach, backed by wet and level prairies, offer few inducements to the agricultural settler; if by the Rio Grande it wears an aspect of aridity, and if by Louisiana and Red River it breaks upon the observer as a poor upland district overrun with wood, with a weak soil of alternate sand and clay. But, after traversing the borders and advancing towards the interior, the scene is entirely changed. Then this singular country exhibits its beauties and develops its resources. In the rolling and hilly sections the grazier and cultivator of the products familiar to the European farmer may obtain easy and ample returns from plains and valleys unrivalled for natural attractions; and on a low line of the coast the enterprise of the southern planter will be prodigally rewarded by the treasures of a tropical climate. To the settler who desires to enjoy the advantages of the upper region without fixing his residence remote from the sea, the western coast of Texas, with its sparkling streams flowing through a fertile and picturesque country, until they blend with the waves of the gulf, is more suitable than the eastern. But it is the peculiar charm of Texas that it offers to the most dissimilar tastes and habits the means of selecting 'a place of rest in some congenial spot.'"

CHAPTER IX.

WE have quoted Mr. Kennedy somewhat in *extenso*. It now becomes our duty to refer to another authority, Mr. Hooton. This gentleman gives many minute and interesting details, but in some respects he is fearfully at variance with Mr. Kennedy. Anxious to act with perfect impartiality, the reader is warned that Mr. Hooton writes in a lively vein, and has a turn for satire which, probably in some instances, causes him to go rather too far in his mirthful criticism. The facts, however, contained in Mr. Hooton's book are serious enough, and, upon the whole, his report is calculated effectually to deter those who may read it, and place their faith in him, from emigrating to that country represented by Mr. Kennedy to offer, in many respects, a most desirable home for those who are weary of remaining in Europe.

Galveston harbour, he says, which must always be the most favourable sea-board, from the shifting sand-bar at its mouth cannot become a place of extensive maritime commerce. That he states to be the opinion of men better qualified to form a judgment on such questions than himself. He was assured by an experienced pilot that no vessel could enter with safety which required a greater depth than thirteen feet of water. The appearance of the bay he describes to be sufficiently gloomy, sprinkled with wrecks of various sizes—"It strikes the heart of a stranger as a sort of ocean cemetery, a sea churchyard, in which broken masts and shattered timbers, half-buried in quicksands, seem to remain above the treacherous surface of the waters only to remind the living, like dead camels on a level desert, of the destruction that has gone before, and yet awaits many who may come after."

From Mr. Hooton's report Galveston, when visited by him, was of less importance than many an English village; its establishments wretched, its inhabitants miserable, while "literature and art, though words to be found in a dictionary, had nothing correspondent to them in Texas." This he illustrates in various ways. The public press (if the phrase may be used in reference to a place which contained nothing like

what in Europe is ordinarily termed a public), was most contemptible; the editor, proprietor, and compositor being found in the same person, and accessible to bribes in the shape of pieces of bridecake and gallons of whisky. The stores he describes to have been receptacles in which lumber and all sorts of rubbish were collected. The markets were moderately supplied with meat and fish; but the former, though killed during the night, would become putrid before noon on the succeeding day. A singular dearth of vegetables prevailed. Such was the scarcity that a cabbage about the size of a blacksmith's fist would cost eighteen pence or two shillings. The water was wretchedly bad. There are no springs in Galveston, and the rain-water, corrupted by the larvæ of the musketoes, rendered it very unfit for drinking. Wells, he states, cannot be dug more than eight feet deep, as below that depth a stratum of black pestiferous sea mud is reached. During the hot season these shallow wells are wholly dried up.

The character of the population, such as it was at that period, was what might be expected in a region so barren of the ordinary comforts craved by civilized man. Mr. Hooton, who can hardly be suspected of viewing the inhabitants of Texas with too favourable an eye, treats it as "a place of refuge for rascality and criminality of all kinds—the sactuary to which thieves and swindlers fly from the laws of their country." This was so much the case that in the United States, when a person in difficulties was missing, it became common to write on his door "G. t. T.," which, being interpreted, meant "Gone to Texas;" and this, though wearing the air of a joke, we are assured it was abundantly proved was founded in truth.

Notwithstanding the plausible representations made by the agents sent to Europe as diplomatists, of the peaceable and flourishing state of Galveston, it appears to have been the scene of the most frightful disorders. There was nothing like society, and in place of law, in the absence of order there was witnessed only what Lord Bacon calls "wild justice," or mutuality of outrage. "Mr. F——, of Galveston," says our author, "related an anecdote to me touching this subject which I cannot withhold from the reader, as it so strikingly illustrates the lawlessness and disregard of human life which then prevailed. One evening, towards sunset, he was standing at his doorway in the principal street of Galveston, when he observed a man of respectable appearance and carriage coming down the rude causeway towards him. Not far behind was another individual, who walked rather faster than the first one, and apparently with the intention of overtaking him: this he shortly did, and on passing by drew a bowie-knife, stabbed the unsuspecting victim of his revenge, who instantly fell dead upon the spot, and with the greatest coolness and deliberation wiped the knife-blade upon his sleeve, and walked on as before. This was within about fifty yards of Mr. F——'s door. Little or no notice was taken of the matter, nor was the individual who had committed the crime even so much as arrested."

Mr. Hooton states himself to have been deceived by misrepresentations on the subject, and to have gone out with an excited imagination, expecting to find, if not a heaven on earth, a very desirable abode. The disappointment he experienced has caused him, perhaps, to view every thing through an unfavourable medium; and he treats every body and every thing with unsparing ridicule. He is, no doubt, severe; but the facts he states seem to justify the conclusions at which he arrives. Texas claiming to be a sovereign state, and Galveston passing for a capital city, caused buildings, institutions, and arrangements to appear ridiculously insignificant from the magnificence of their pretensions. It is not to be doubted that interested parties were not very scrupulous in what they advanced, to induce persons possessed of capital to settle there. Such visitors found it very unlike what had been reported; very unlike what they had been accustomed to in other climes. The fault, probably, rested mainly with those by whom Texas was first erected into an independent republic, and this being known to the government of the United States might have favoured the annexation project. Mr. Polk and his colleagues, looking to the capabilities of the soil, probably saw that these were worthy of a better administration.

If Mr. Hooton is right on one point, a knowledge of the fact may greatly tend to avert those evils which seemed likely to grow on the angry discussion of the question, whether slaves should be permitted to be carried from the United States into the newly acquired territory. Those who have conscientiously opposed the introduction of slavery there can hardly maintain their position, if it be true, as Mr. Hooton states, that "the purchase and sale of slaves are just as common in Texas as the transfer, for pecuniary considerations, of any kind of animal."

Some diseases and many annoyances are mentioned by this writer as belonging to Texas, which would effectually subdue, in English minds at least, any desire that had been kindled to pay it a visit. A vigorous government may, however, do much towards what may, at first, seem an evil too great to be arrested or diminished by human energies. Portions of the fairest lands of Europe were formerly dreary forests or dismal swamps, supposed to be unfit for the dwelling-place of man.

Come what may, it is hardly possible for Texas to be rendered worse than it was previously to its being admitted into the North American Union. We shall take leave of this subject by abridging one tragical tale, which we find in Mr. Hooton's book, premising that he offers it as a "fine specimen of (even very recent) frontier life and adventure of Texas."

"Three persons named Slocum, a father and two sons, had established themselves at a distance of fifteen or twenty miles from any other settlers. At first poor their means were thought to increase too rapidly, and, at length, it was suspected that they lived by robbery.

"Rumours then got afloat that, during the last few years, various overland travellers from the States into Texas, and *vice versa*, had not since been heard of by their friends, nor could any trace of them be made out. The settlers of the neighbourhood—that is, a circuit of forty or fifty miles—thought they now saw at once the cause of increase in the Slocums' number of horses, and saddles, and trappings, as well as the source of the true fountain of their ready money, and determined to investigate the matter. But the law had no power, comparatively speaking; and such of its executors as might have been brought to bear were afraid, as they knew also it would be useless, to go alone.

"While this state of things continued, it was suddenly discovered that several parties who had travelled in that direction could be traced as far as Slocum's house, while beyond it nothing whatever could be heard of them. The surrounding settlers now determined to have the question ascertained; and mustering to the number of ten or fifteen, mounted on horseback and armed with rifles, they proceeded—headed by the sheriff of the county in which the transaction took place, in order to give colouring to the process—directly to the location of the suspected parties. By dexterous management, they contrived to come upon it with a degree of suddenness which did not allow much time for escape, even had such been meditated.

"They found the elder Slocum digging in the garden with a double-barrelled gun by his side in readiness for any emergency, as neither he nor his sons could be ignorant of the opinions which had long been entertained concerning them.

"According to previous arrangement, the sheriff was to ride up first alone, and, producing his warrant for the apprehension of all three, demand their immediate surrender, while the volunteer body remained at a distance watching the result. In case of any hostile demonstration on the part of the Slocums, they were to ride up and take all they could, dead or alive.

"The sheriff rode gallantly on in the face of old Slocum, who now rested from his spade, and on the double-barrelled gun which he had taken up instead. The anxious volunteers could scarcely sit upon their saddles, for they felt as eager to be after him as so many dogs in sight of, but not yet let loose upon, a badger.

"They observed by the actions of both the officer and the criminal that a desperate, though brief, parley was going on, and seeing Slocum at length about to raise his gun, galloped rapidly up. Before they reached the spot, he fired at and wounded the sheriff, but not mortally. Three rifles were pointed at him at once, and the contents of one killed him almost instantly; yet, in falling, he discharged the second barrel of his piece, and but narrowly missed lodging the contents in the bodies of some of the volunteers.

"While some of the party saw to the sheriff, who was not very desperately wounded, the remaining portion dashed through and over the fences to reach

the house before the sons, if at home, could escape. One was secured; but the other made an escape, which, however, proved but temporary, as he was pursued and speedily retaken. On being questioned and examined relative to the charges against their father and themselves, the one who had escaped distinctly and emphatically denied any and all knowledge whatever of any criminal transactions ever having taken place in that house. He was informed that lying only made the guilt the deeper, and that it could answer no end in hiding the truth, as the matter would very soon be proved. Still, as he obstinately held out, and the wild justice of these wild lands soon loses patience, rather than be troubled any longer with a fellow of whose guilt these embodied accusers, judges, and juries were perfectly satisfied, they carried him out, and, without further ceremony, hung him to the first tree in front of the house.

"The third and last of this wretched family, finding his father shot dead, and his brother lynched, confessed at once that the hands of all three were dark with the blood of many—he knew not how many—travellers who had put up at their house weary and faint, and in all that confidence of safety which the common practice of both American and Texian settlers so fully supports and justifies. His father, he said, first commenced, and continued principal executioner up to the last. He and his brother did not like it, though they had done it three or four times. But his father generally liked to smother them in the dark when they were asleep.

"'Almost all these saddles and things you see round about here belonged to the travellers we've murdered, as well as most of the horses. Some of the bodies we buried—father killed 'em, and me and my brother did the rest—and some we let down into the well. But they spoiled the water, so that we could not drink it, and were obliged to dig another. Burying them, however, did not answer, and as the wells were found best, we dug more. There's three of them in the garden of that sort, as you'll soon find by the bones when you go to the bottom. Don't drink anything out of them, for they are none of them fit. But if you want water to use, go to that other at the far end there, and you'll find it good, for there's never been anybody put in there.'"

"By such paltry attempts as these to recommend himself to mercy—by this seeming solicitude lest his judges should chance to taste of the death-polluted and corrupted water, did this poor abject creature now secretly hope to save his life. All was in vain. After having used him as their guide throughout the premises—after having descended the wells and brought up or hooked out of them skulls and bones enough to bear testimony for three sextons, and obtained from him every information he was either willing or able to give, they took him out and either shot him or hung him beside his brother, I cannot say which. They afterwards stayed in the house to rest themselves and recover the sheriff, during about two days, finding plenty to

eat and drink upon the premises; then clearing out all the property they could, worth carrying away, and placing it in custody of the sheriff, they deliberately set fire to the whole of the premises—watched until they were levelled with the ground, and then returned back and dispersed to their respective homes.

“The destruction of these disabolical scoundrels, thus effected, was hailed by the country people almost as a triumph, and Lynch law was declared to be far superior in many instances to any other kind of law then practicable in Texas.”

It may be very true that summary proceedings in the case described gave general satisfaction; and that by no other means could substantial justice be done; but how sad is the case of that people which suffer from a disease only to be cured—or, from time to time, abated by lynch law!

What will eventually be the fate of Texas? In the language of Isaac Walton, “He whose name is wonderful” alone knows; but so far as human foresight can extend, its condition must be ameliorated by the course which events have taken. Possibly, in the fulness of time, its ample lands, various soils, and well peopled waters, are destined to sustain a mighty population, in which not only the United States, but all the nations of Europe, America, and Africa will be represented.

CHAPTER X.

OF all the acquisitions made by the United States of North America, since the opening of the present century, that which appears the most important, and which will assuredly be long remembered for good or for evil by the whole of the civilised world, is the vast territory known as Upper California, obtained at the conclusion of the treaty of Queretario, as mentioned in a former portion of this work.*

Scarcely had the cession been completed, when most extraordinary discoveries were made of that valued metal which governs and disturbs the whole family of man. If the first reports which reached the United States, and subsequently Europe, seemed extravagant, those which immediately followed were more so, but they were succeeded by others which left behind every favourable representation previously received, accompanied by vouchers and attestations so satisfactory and convincing, that the most cautious could not resist the impression that quantities of gold had been found which were quite out of the common way, and each succeeding day multiplied proofs that a new case had occurred in which the truth was "stranger than fiction. What will be the ultimate reward of the daring enterprise and vast speculations to which this state of things has given rise, it is foreign to the purpose of this work to inquire; but the history of the territory to which the attention of all nations has been called in a manner so remarkable, must now be eagerly sought by contemporary curiosity; and it cannot but interest in future years; possibly to the end of time.

California, or as the immense tract of land so named has usually been called by the English, "the Californias," was formerly a part of New Spain, but was included in the territory claimed for the Mexican republic, when the several provinces of South America threw off the yoke of Spain. The Bay of San Francisco is found at the northern limit of the country settled by the Spaniards; the southern boundary was Cape San Lucas. The entrance of the Bay of San Francisco lies $37^{\circ} 48'$ N. latitude, and $122^{\circ} 47'$ W. longitude. Cape San Lucas lies in N. latitude $22^{\circ} 48'$ and in

109° 47' W. longitude. On the coast it is bounded by the Gulf of California, the Rio Colorado or Red River, and the Indian territory, which also encloses it on the North. The name of California was for nearly two centuries given exclusively to the great peninsula which, in modern times, has been known as Old or Lower California. When the Spaniards had discovered and colonised the country to the north of the peninsula, the distinctions which have since obtained were thought necessary.

Of Lower California little need here be said save that it was discovered by Cortez in 1534, or rather by Grijalva, an adventurer entrusted by him with the command of a small expedition fitted out from the coast of Guatemala. Little success attended the first European explorers of California, and Cortez then undertook the task himself. He is believed to have ascertained that it was no island or archipelago that Grijalva had discovered. Having returned to Acapulco, Francisco de Ulloa, one of his officers, in 1537 explored the various shores of the Gulf. The barren aspect of the soil, which offered but scanty sustenance, and the deplorable poverty of the natives, which held out no temptation to plunderers, caused little value to be attached to the discovery of Grijalva.

Several other efforts were made to explore the neighbouring territory, some of which miserably failed, and others were attended with moderate success. The celebrated English commander, Sir Francis Drake, discovered in 1578 that in the latitude of 48° territory existed, peopled with human beings. He explored the coast to the extent of 220 leagues, and, pleased with the country he had discovered, formally took possession of it in the name of Queen Elizabeth, and called it New Albion. The harbour which he discovered in latitude 38° 30' he reposed in for some time, and it has since been known by his name. In 1653 a work was published in London having for its title "The World encompassed, by Fletcher," which contained an account of Drake's voyage, and in this the reasons which influenced him in bestowing upon the land he had visited the title of New Albion, were mentioned, which were that, upon account of the rocks and shoals which skirted the coast, it presented an aspect not unlike that of England, and further because he judged it reasonable that it should be thereafter known by the name of the country to which its discoverer had belonged.

Juan de Fuca, a Greek from the island of Cephallonia, being engaged as a mariner in the service of Spain, discovered in 1592 a large strait by which he reported he had reached the Atlantic Ocean. That strait has been explored by modern navigators, but the communication which he described to exist between two oceans has not been found. A vessel was sent in 1595 to make discoveries on the coast of California, which was unfortunately lost in Port des los Reyes; and in 1602 Sebastian Biscaino Viscaïno, a Spanish admiral, was ordered by Count de Monterey, viceroy of New

Spain, to seek north of California a harbour capable of receiving the Spanish galleons on their return from Manilla. Biscaino had the good fortune to find one safe and well situated in the latitude of $36^{\circ} 40'$. He named it after the viceroy, and it has since been known by the name of Monterey. and was long regarded as the principal settlement of the Spaniards on the north-west coast. A small vessel connected with the expedition of Biscaino, and commanded by Martin de Aguilar, is said to have discovered between 40° and 44° the mouth of a great river, to which his name is given in the maps. That officer, it is added, doubled Cape Mendocino, which till then had only been seen at a distance; and discovered, on the 13th of January, 1603, 30 leagues to the northward of it, in the latitude of 43° , a second cape, to which he gave the name of Capo Blanco. He further stated the navigable inlet or large river which he discovered near the cape was a strait leading to a great city named Quivira. There are reasons for believing that De Aguilar, if he did not wilfully sin against truth, committed grievous errors, as what he declared he had discovered, later adventurers have not been able to find. La Perouse, who was in that vicinity in 1786, obtained a distant view of Capo Blanco and of parts of the coast near it, but he saw nothing of Aguilar's inlet. It is true he made no particular search for it, and as he remained at a considerable distance from the land, the evidence he gives is not decisive upon the question of its existence. In the geographical and hydrographical charts it is commonly laid down to the southward of Capo Blanco. Thomas Lopez, in a general chart of America, published in 1772, gives it 20 leagues to the north of Capo Blanco, and in the latitude of 44° , with this description, Rio Que Corre a L'Ouest, or river that flows towards the west. Lopez, however, leaves us quite in the dark as to the situation of the great city Quivira.

From an early period it has been supposed that sources of immense wealth were to be found in this region. Captain Juan Iturbi, an adventurous mariner, undertook a voyage at his own expense in 1615, to explore the Californias, and on his return to Mexico, he exhibited a large quantity of valuable pearls which he obtained there, and thus inflamed the desire which had previously existed for effecting the conquest of California. Of the riches so acquired, one-fifth was set apart for the king of Spain, and on one of the pearls brought by Iturbi from California, he is said to have paid 900 crowns as the king's share, thus making the value of the gem reach at least 4,500 crowns. Captain Francisco de Ortega, in the years 1632, 1633, and 1634, made three voyages to California, and Carboneli, who had been his pilot, afterwards continued his labours. Admiral Cassanet in 1648, being authorised by his government, attempted a settlement. He took with him a body of priests, who accompanied him to convert the Indians to Christianity. The expedition proved a failure, in consequence of the poverty of the people and the barrenness of the country. Other experiments were made, which did not prove more fortunate. But a con-

siderable expedition was sent there in 1683, under Admiral Otondo. Father Kühn, the celebrated Jesuit missionary, went with him. The admiral established himself in the country, penetrated far into the interior, and remained there a considerable time, but notwithstanding the anxious and unremitting efforts of Father Kühn and his coadjutors, they had so little success in prevailing on the natives to submit to the baptismal ceremony, and to become Christians, that at the end of three years the whole scheme, which had cost the Mexican government 225,400 dollars, was given up. Another attempt of the same kind was made by Itamarra in 1694, which proved also a failure.

The disappointment experienced through the loss occasioned by the costly expedition of Otondo led the viceroy and consul of Mexico to resolve that the settlement of the country was impracticable, by the means hitherto employed, and they determined that nothing more should be done in that way at the public expense. They nevertheless recommended that the society of Jesuits should attempt to form an establishment there, and that for doing so a certain income should be secured to them out of the royal treasury. Looking at the artful and persevering conduct of that society, and placing it in juxta-position with recent alleged discoveries, it is hardly too much to presume that the Jesuits having satisfied themselves that great wealth was there to be found, successfully exerted themselves to cause the ill success which other adventurers had uniformly to deplore, that they might keep the land of gold all to themselves. Be this as it may, when it was proposed to them to undertake the conversion of California, the recommendation was most cordially welcomed (possibly it had been prompted by themselves), and Father Kühn, or Kino, as he is more generally called, and other missionaries his friends, manifested the utmost ardour to undertake the spiritual conquest of California. Their efforts were not unrewarded. More happy than the worldly explorers who had preceded them, they had to boast of great success. Father Miguel Venegas, a Spanish writer, and a member of the order of Jesus, thus exultingly speaks of their triumph:—"The mighty conqueror Hernando Cortez repeatedly employed all the force at his command to effect the conquest of California. Moved by his example, viceroys, admirals, governors, and crowds of private individuals, attempted to carry into effect his design. No happy result followed, and the kings of Spain then sought to carry forward the design; but still, after great efforts had been made, and vast expenses incurred, the object in view was not attained, and the reduction of California was deemed to be impracticable. Such, in truth, it was by the efforts of human beings, but what they failed to achieve was to be accomplished by means which God had chosen. Warlike weapons and an array of power had heretofore been relied upon; it was the will of the Most High that where these had failed, a triumph should be won by the meekness and courtesy of his ministers. That which the pomp of power

could not command, was won by the humility of those who peacefully strove under the banner of the Cross, and the irresistible force of the Word of God. It would seem that the Eternal had only waited till ambitious mortals had proved their weakness, to make known the strength of His almighty arm, and to confound the proud by the happy progress of those who, in a worldly point of view, were among the weakest of his instruments."

Father Kino had obtained a professorship of mathematics in a German university. He had taught at Ingolstadt, and was there held in high favour by the electoral house of Bavaria. Being attacked by disease, his life was in danger, and when almost on the verge of the grave, he made a vow to St. Francis Xavier, should his life be spared, to dedicate it to the service of heaven, by undertaking the conversion of the heathen. He proposed to himself to imitate the pious saint to whom his vow was addressed, and in the fulfilment of that vow, he gave up his professorship, and went to America in the character of a missionary. He might possibly have heard something of the pearls and of the gold, said to be so abundant in the place to which he directed his course, but this is not stated by his biographer. Kino is represented to have been assisted by friends not less ardent than himself, and among these Father Salvatiera, Father Ugarte, and Father Piccolo, are mentioned, all of whom were subsequently distinguished by their zeal and by their good fortune. Salvatiera led the way, and passed into California, while Kino rested upon the opposite coast of Cinaloa, and Ugarte remained in Mexico, but each labouring in various ways to promote the success of that great work which all had at heart. To forward the conversion of the Indians, subscriptions were called for, and the call was liberally responded to by the wealthy, and suitable endowments were, ere long, provided for the new missions. It does not appear that the general government took any part in the enterprize beyond giving the Jesuits permission to settle in California and to enlist soldiers for their defence, who were to depend upon them for their pay. They were permitted to have authority over all who engaged in the expedition, and the country was to be taken possession of, in the name of the king of Spain.

It may excite some surprise that with very slender encouragement from their government, a few Christian ministers should have had the courage to undertake a task of such magnitude, and modern readers can hardly look at this without referring to the pearls or gold, but on the 10th of October in the year 1697, Father Salvatiera sailed from the harbour of Yagin, attended by a not very formidable military force, seeing it comprehended but five soldiers and their captain. On the next day but one they reached California, and after a few days, chose for their station a spot near the bay of San Dionisio, ten leagues north of San Bruno. A spring of clear fresh water was discovered about a league and a half from the shore, and here on the 19th of October, they left their vessels, set up their tents, and removed their cattle

and other stores to the station they had chosen. A somewhat interesting description is given by the writer already quoted of their first proceedings. He describes Father Salvatiera to have been most active as a labourer, and he states, the barracks of the little garden to have had a line of circumvallation thrown up around them. He proceeds,—“In the centre of their encampment, a tent was erected, which was temporarily to serve for a chapel; a crucifix was placed before it, surmounted by a garland of flowers, and then the venerated image of our Lady of Loretto, the patroness of the conquest, was brought in solemn procession from the ship, and conveyed to the simple temple with pious care. Six days afterwards formal possession was taken of the country in the name of his Majesty, the king of Spain and the Indies.”

The aboriginal tribes of America seem generally to have been a weak and timid race. Though capable, under some circumstances, of horrid vengeance, they could never oppose formidable hostility to European visitors. They stood in great awe of the Spaniards, and it was not dread of their resentment which caused the failure of previous attempts to settle the country, but, as already mentioned, it was the poverty and sterility which seemed everywhere to prevail. They had made little progress at this period, and were in as deplorable a condition as they had been when Grijalva appeared among them a century and a half before. Their dwellings were of the humblest, frailest character; mere huts formed of branches of trees, and covered with reeds. If such abodes scarcely deserved to be called houses, the dress of the natives was equally unworthy of the name of clothing. They were almost in a state of nudity, but the men wore ornaments on their heads, formed of feathers, or shells, or flowers. The women wore girdles or scanty petticoats, composed of reeds. Their occupations comprehended hunting and fishing, but extended not to cultivating of the soil, and great must have been their astonishment, when they found their new teachers able to obtain, in answer to their prayers, valuable products from the soil, such as had never been grown in that region before. Man, in a wild or savage state, in almost all parts of the world, seems to have applied himself to make a bow and arrow, and these rude weapons, important in the absence of the sword and the gun, were possessed by the Californians. Their manufacturing skill extended not beyond fabricating the poor habiliments we have described, and a few vessels which were formed of clay or of reeds. They possessed no canoes, but were enabled to cross a stream by means of a raft composed of bulrushes. It will thus be seen that they were in a state of ignorance the most profound, and their condition was such as we might imagine to be that of a newly-created race whom no intelligent mortal preceptor, and no divine revelation had as yet condescended to enlighten.

Religion can hardly be said to have existed in their minds, but they had conceived some wild ideas of beings superior to themselves in power, and they had among them

individuals, peculiarly gifted, who were regarded with superstitious awe, and who, artfully turning to account the credulity of their fellows, gained credit among them for powers which they never possessed. They pretended to reveal the future, and in some cases to inflict disease on those who offended, or to cure it, in the case of sufferers who were deemed less unworthy. The missionaries called these pretenders sorcerers, but the only sorcery to which they were equal was that of bending the minds of their fellows to what they wished them to believe. One of their remedies is mentioned in favourable terms by Venegas, as that which greatly tended to sustain their importance; this was the application of a tube formed out of a very hard stone through which they, in some instances, sucked away humours which had caused pain.

The missionaries are described as having to contend with many difficulties. They were furnished, however, with timely supplies, and continued their labours. In one instance, the Indians rose against them, and their little camp was assailed by about 500 men. Father Salvatiera, though humanity and policy made him reluctant to sanction any hostile movements, was at last compelled to allow his soldiers, who were now ten in number only, to use their fire-arms. The effect of these was so alarmingly great, that the Indians soon fled in consternation, and sent messengers to pray for a cessation of hostilities. This defeat of an undisciplined crowd by a few soldiers, though no more than what has often been witnessed in our own time and in civilized countries, was celebrated by the Jesuits as a miracle, which proved beyond all doubt that they were under the immediate protection of the Almighty. They fervently adored the Holy Cross as the symbol of their faith, and it was remarked with admiration and due reverence, that most of the arrows aimed at them had struck the pedestal of the Cross, which, as well as the tent or chapel it adorned, remained uninjured by the barbarian attack.

Father Francisco Maria Piccolo now joined Salvatiera, and the settlers proceeded to erect a chapel in which Our Lady of Loretto might be placed in safety, as also houses of stone, clay, and thatch for themselves. While instructing the Indians, to win their attention, they made them frequent presents. But after a time, the liberality so exercised, fell short of what was desired, another rising was attempted, and peace could only be restored by again having recourse to the musket. Even this was, however, likely to fail them, as from lack of pay, the soldiers and their captain mutinied. The most refractory of them were dismissed, and only the few who seemed more attached to the pious fathers than their comrades were retained. The fathers had contracted debts which they were in no condition to pay. "We shall however consult, in liquidating all arrears," wrote Father Salvatiera to a friend, "and if, after sending away the military, our Californian sons should put us to death, our creditors must look to the Lady of Loretto, who will doubtless satisfy all their just demands."

With equal courage and address the missionaries pursued their object. At first the natives treated with foolish derision the solemnities they were required to attend, and one Indian, who had a great character for strength and boldness, particularly distinguished himself by his affronting rudeness. Father Ugarte gave him a check which made a great impression on the beholders. The missionary was a full-sized man and possessed uncommon strength, and in the moment when the mockery of the Indian fixed his attention and was most outrageous, Ugarte seized him by the hair, and, lifting him up, swang him backwards and forwards, with apparent ease. The salutary intimation thus conveyed to each, of the personal strength he might have to encounter, made all careful thenceforward not to give offence, and the missionaries, besides teaching the principles of the Christian religion, communicated to them many of the useful arts, and eventually had the happiness to see their slothful habits give way to rational industry, and plentiful harvests of wheat and other descriptions of grain reward their labour. Their conduct, in many respects, seems to have been eminently praiseworthy, but it must not be forgotten that their story is written by one of their brethren. Father Kino died in 1710, leaving behind him a high reputation for intelligence and humanity. He had promoted the Californian missions, but towards the close of his life was so much engaged with the Indians on the opposite coast, that he could only assist those who remained in California by occasional exhortations and supplies of provisions. He made several journeys to the northward, in order to decide the question which was then much agitated, as to whether California was an island or peninsula. At different periods between 1699 and 1707 he made no fewer than five journeys in pursuance of this object, and succeeded so far as to ascertain that California might be reached from New Spain by land.

Father Salvatiera succeeded in getting a better system of government established in 1716 than had previously existed. In 1717 a dreadful hurricane overthrew the house and church of Father Ugarte. In 1719 that able and industrious missionary built a vessel of considerable size in California with timber of the country, found among the mountains, and distant 30 leagues from the river on which the vessel was built. In 1720 two new missions were established at La Paz and Guadaloupe. In six years from these settlements being formed in these parts, 1700 Indians were reported as being converted, and settled in five villages, in each of which a church had been erected. After passing through many painful struggles and several scenes of dangerous strife, the missionaries so far prevailed, that in 1745 they had established in all no fewer than 14 missions. They afterwards added two to the number, but on the expulsion of the Jesuits from the Spanish dominions in 1767, the whole of the missionaries were compelled to remove. They were superseded by a body of Franciscans sent to California from Mexico, and the last were, after a short time, obliged to give way to a brotherhood of monks of the Dominican order.

Great care was taken both by the Jesuits and their successors to give the Indians the advantages of education. At one or more of the stations a reading, a writing, and a singing school were established, and provided with competent masters. One branch of commerce famous as a source of wealth, the pearl fishery, was especially encouraged. The traffic in pearls greatly increased after the discovery of America, and they were said to be found in greatest abundance near the island of Cabagna, in the mouth of the Rio de la Hacha and in the Gulf of Panama. In 1587, pearls amounting in weight to 697 lbs. were conveyed to Spain from America, but the pearl fishery of Cabagna having failed, attention was turned towards California. Before Europeans found their way there, the pearls were little valued by the natives. The oyster was placed on a fire that they might get at the fish to eat, and the pearls, which were not regarded, were by this practice burnt or lost. Eventually they became acquainted with the value set on them by foreigners, and sought them as eagerly as Europeans could do. The traders, however, cruelly oppressed the Californians. It was customary to seize them, and compel them to act as divers. Some of them engaged for certain stipulated rewards to dive for pearls, but many were compelled to engage in that laborious and perilous work. To this cruelty the Jesuits made them believe that they were opposed, and they openly forbade its continuance on account of the cruelties associated with its prosecution. They also obtained authority from the government for excluding all vessels from the gulf save those which had a licence from the viceroy, and the military commandant in California had power to examine these licences, and to send away all who were not duly provided them. He was known to be intimately associated with the Jesuits, and as their instrument invested with such powers, it was no difficult task to keep away parties who were likely in any way to interfere with their views or interests. These regulations were in force at the commencement of the 17th century, when the king's share of the pearls raised, averaged about 12,000 dollars per annum for every barque engaged. From six to eight hundred Indian divers, called *Busos*, were employed, and the trade was carried on by vessels of different sizes. They fitted out from Guamos, on the opposite coast, and having obtained a licence from the commandant-general of the province of Sonora, they sailed for California, and anchored near the Placeres, or banks which were known to contain pearl oysters. Some of the traders, however, went in launches, and the divers used canoes in which they brought the oysters to the shore, where they proceeded to open them. The manner of carrying on the fishery is described by Forbes to have been as follows:—“The vessel being anchored, and everything ready, the divers plunged down in all directions, and dug up with a sharp-pointed stick as many oysters as possible while they could remain under water: they then came up, took breath, and at the same time deposited the oysters in bags hung over the vessel's sides. Having done

this, they again plunged under water, repeating the same operation till the bags were full, or the usual time for working expired; they then all came on deck with the bags, and placed themselves in a circle round the owner, or as he was called, the 'Armador,' who took the contents of the whole bags and made a division as follows:—two oysters for the armador, two for the busos, and one for the king; proceeding in this way till the whole of the oysters were disposed of. When this operation was concluded, they all began to open the oysters, beginning with those which fell to the lot of the armador, but without moving from the circle which they had formed round him; and he had then to watch with the utmost vigilance, for they had a dexterous knack of swallowing the most valuable pearls along with the live oyster, which they threw into their mouths by a kind of sleight of hand, which it was almost impossible to detect. The king's fifth was then opened under the same precautions, and the pearls deposited in the presence of all. Lastly, the divers opened their own oysters, and the pearls were equally divided amongst them, and generally sold on the instant to the armador, to whom they were always indebted for their outfit and for previous advances. They however never failed to reserve some, which they sold to the dealers on shore, who always accompanied the busos, and who often made more money than the armadors. Those dealers carried with them spirituous liquors, chocolate, sugar, cigars, and other cheap articles, of which the Indians are passionately fond, and for which they often exchange pearls of great value."

The same writer states it to have been long believed by the Spaniards that there were immensely rich banks of pearl oysters on the shores of Tiburon, an island near the mouth of the gulf, but that its inhabitants, who were accustomed to use poisoned arrows, were so desperately savage that none could approach them without extreme peril, and in consequence, a law was framed by the Spanish government, prohibiting all Spanish subjects from visiting Tiburon. When the Mexicans no longer acknowledged the authority of Spain, they continued from habit or timidity to observe this law, and the island long retained its fame for wealth, without being visited by Spaniards or Spanish Mexicans. On this important subject he adds, "The most remarkable incident in the recent history of the pearl fishery of California is the fact of an association having been formed in London in the year 1824 or 1825, for the express purpose of prosecuting it under a new and improved system. The new company was termed the 'Pearl and Coral Fishery Association,' and great expectations were entertained from the activity of the director, Lieutenant Hardy, R.N., and the use of a diving-bell with which he was furnished. The employment of the diving-bell certainly at first sight seems to hold out a great prospect of success; and we learn from Humboldt that long before the formation of this association the same idea was entertained by the Mexicans themselves. A project of this kind was started

in 1803 by an ecclesiastic residing at the city of Mexico. He conceived that as the *busos* (divers) lose much time and also injure their health in their repeated descents and ascents, there would be immense benefits derived from taking advantage of the facilities afforded by the diving-bell for exploring the depths of the ocean. Furnished with a mask and a flexible tube, the diver, he imagined, would be enabled to explore not merely the space immediately below the bell, but all around it, as far as the length of the tube would permit. This tube was connected with the body of the bell, which not only acted as a reservoir for the supply of air, but also as a place of refuge or resort when the diver was exhausted. Humboldt says that he saw a number of experiments made with this apparatus in a small lake or pond near the castle of Chopoltepec; and remarks that it was no doubt the first time a diving-bell was constructed at a height of upwards of 7000 feet above the level of the sea.

“It would appear that subsequently the priest, the maker of this diving-bell (which was made of wood), proceeded to California, and was reported to have realised, by means of it, a large fortune in a short period. We have, however, no authentic accounts of the expedition. The diving-bell of the London Association was, we believe, not a whit more advantageous to the progress of pearl-fishing, or to the shareholders in London, than was that of the good padre, even if it had never left its native pond at Chopoltepec.”

CHAPTER XI.

THE Jesuits were expelled from Lower California in 1767, and this caused attention to be fixed on Upper California, and a settlement was made there in the following year, when Padre Father Junipero Serra, a Franciscan friar, was named missionary-president of Upper California, and with sixteen brethren from the convent of San Fernando, proceeded to attempt the spiritual conquest of the province. They reached San Blas in the month of February, where he and his companions met with the like number of Jesuits from Lower California, whom they were to replace. Father Junipero Serra, with his sixteen Franciscan brothers, sailed on the 1st of March for Loreto, and reached their destination on the 1st of April. Don Joseph Galvez had been appointed visitador-general, and followed them, but from tempestuous weather was unable to reach Loreto as proposed, and did not arrive at La Paz till the 6th of July. He had great powers confided to him by the king of Spain, and he was ordered to superintend the expeditions which were then about to be dispatched to Monterey and San Diego. On reflection the visitador was of opinion, that to these a third expedition might advantageously be added to a place situate between Monterey and San Diego, and called San Buenaventura. This was to be a land expedition, and was to carry 200 head of black cattle from Lower California, together with agricultural implements, seeds, and other things required for civilized life, partly brought from Spain. On the 9th of January, 1769, the San Carlos sailed, commanded by Don Vincente Vilal, with a small military force and a spiritual pastor, Father Friar Fernando Parron. The San Antonio sailed on the 15th of February, commanded by Don Juan Perez; and the third, the San Joseph, sailed from Loreto on the 16th of June. These expeditions were not very fortunate. The San Carlos reached San Diego on the 1st of May, but such had been the ravages made on board through want of proper provisions; from hunger, thirst, and the scurvy, that all who had sailed in her were dead save the officers, the cook, and one common sailor. The San Antonio, which had sailed five weeks later, arrived on the 11th of

April, but eight of her crew had been carried off by the scurvy. The San Joseph is supposed to have been wrecked; after leaving Loreto she was heard of no more.

The division which has been mentioned as the land expedition, resolved on dividing itself into two parties, that if one should be cut off by the savage tribes which they had to encounter, the other might be saved. Don Gaspar de Portala, a captain of dragoons, commanded the land expeditions, having for his lieutenant or second, Fernando Riviera y Moncarda. The former was appointed governor of California. Moncarda left Santa Anna in Lower California, in September, 1768, and soon arrived at the village of Nuestra Señora de los Angeles. They found the country barren, and this caused them to advance further into the Indian territory. Having gone forward 18 leagues in the direction of San Diego, they discovered a place called by the natives C. Villacata, which offered greater advantages, and here they remained till the 24th of March, 1769. They resumed their march, and reached Port San Diego on the 14th of May, where they found the San Carlos and San Antonio at anchor. The black cattle, mules, and horses, which accompanied this second division, were kept together at Villacata, and the governor arrived there on the 13th of May. They found that place so favourable to their views in various respects, that it was decided to remove to it a mission previously established at San Francisco de Borja, and accordingly on the next day (the 14th of May), they formally took possession of the place in the name of the Spanish monarch. A piece of ground was cleared to serve as a temporary church, bells were hung, and a grand cross was erected. The Father-President being invested with the *capa* and *alba pluvial*, blessed the holy water, the site of the church, and the cross established before it, the whole being consecrated to San Fernando. Mass was celebrated, and the governor and president preached on the coming of the Holy Spirit. The *Veni Creator* was sung, and as they had no organ, the place of music was supplied by a continuous discharge of fire-arms while the ceremony was in progress. Having no incense, the smoke of the guns served as its substitute.

Governor Portala, accompanied by the President, left Villacata on the 15th of May, 1769. They wished to reach the mouth of the Rio Colorado but were compelled to change their route and approach the coast of the Pacific, which they reached, after a journey of 46 days, on the 1st of July.

The situation in which he found himself is detailed in a letter written to Father Palou. Having announced his arrival at San Diego, "Here," he proceeds, "I found those who had preceded me, by land and sea, save those who have expired. Father Crespi, Biscayno, Parron, Gomez, are here, and, with myself, in good health, praised be God. The two ships are likewise here, but the San Carlos, bereft of mariners, all, two only excepted, having fallen victims to the scurvy. The San Antonio, which embarked six weeks later, anticipated in her arrival the San Carlos

by twenty days, having lost eight seamen; it had therefore been resolved to return to San Blas to procure sailors for her and for the San Carlos. The fatal delay of the San Carlos was caused by lack of water, owing to the casks being defective, and this, with the unwholesome water found on the coast, caused a deplorable mortality among the crew; and in addition to this there had been a great error in regard to the situation of this port. It was said to be in 33° or 34° of N. lat., and therefore it was deemed advisable to keep in the open sea till they reached 34° , whereas it really lies in $32^{\circ} 34'$. The voyage was thus made unnecessarily long, and the people getting daily worse must all have perished, if they had not discovered the port as they did; but it was not in their power to launch the boat in order to seek more water, or to make any other effort for the preservation of their lives. Father Fernando," he continues, "did everything in his power to assist the sick, and although he had arrived much reduced in flesh, he did not take the disorder, and is now in good health. We have not suffered from hunger, nor have the Indians who accompanied us. The land over which we have passed is generally very good, well watered, and neither rocky nor overgrown with brushwood. There are many hills, but they are composed of earth; the roads were for the greater part of the way bad, but the valleys and rivulets which presented themselves during half the journey were delightful. We found vines of a large size, sometimes bending beneath a load of grapes, and we saw a multitude of roses, similar to the roses of Castile. It is, in short, a very pleasant country, and decidedly superior to Old California. Some Indians appeared, and indeed they have been found in great numbers, and those dwelling near the shores of the Pacific gain for the most part a comfortable livelihood by fishing, which they carry on by means of tule-rafts or canoes, in which they venture boldly out to sea. Their deportment is conciliating. All the men are in a state of nudity; the women and female children are covered from their bosoms downward. In many places on our road they seemed to have perfect confidence in the goodness of our intentions. When we offered them food it was always refused. They were anxious to obtain cloth, and for that were willing to give fish or anything else they possessed in exchange. On our way we found hares, rabbits, some deer, and numerous *verendos* or wild-goats."

On the 9th of July, pursuant to what had previously been resolved, the San Antonio was sent to San Blas with what was deemed a sufficient crew, but nine of her people died on the passage. It was finally decided that the principal part of the expedition, commanded by the governor, should march overland to San Diego to the northward, to discover and settle the port of Monterey, where the Father-President was to remain with two of the missionaries. Two Franciscans, Juan Crespi and Francisco Comez were to go with the expedition, which was to move forward on the 14th of July. It was attended by fifteen Indians from Lower California, who were

to assist as muleteers. It set out full of hope, but experienced great disappointment, and after six months' wanderings returned to San Diego, and reported that they had not been able to discover the port of Monterey. They were in error, for they had actually reached it, but did not consider it answered the description which had been given of it by Sebastian Viscano. They, in fact, considered the place at which they had arrived was not the same of which he had spoken. They journeyed to the northward till they discovered a very fine harbour, to which they gave the name of San Francisco. It was so named in consequence of what passed between the President and Visitador-General when the former was receiving his instructions from the latter. The president having observed to him that a mission was to be named after the founder of their order, at length inquired whether their father San Francisco was not to have one assigned to him. The Visitador had no particular anxiety to exclude the patron saint from the honour, but remarked:—"Should San Francisco desire you to have a mission, it will be easy for him to guide you to a commodious port, and when he does that, let it bear his name." This injunction was not forgotten by the brothers, and on beholding the noble bay of Monterey they exclaimed:—"This is the harbour to which our good saint has been pleased to conduct us, and this is one to which we are directed under the circumstances to name after him." It was accordingly named immediately the Bay of San Francisco. Possession was taken of the adjacent coast, a cross was erected, after which they retraced their steps to San Diego, which they reached January 24th, 1770.

Proceedings of some interest had taken place at San Diego while the governor and his companions were reaching Monterey. Father Junipero, on the 16th July, laid the foundation of a building for the accommodation of the mission. This was the day on which the triumph of the Holy Cross is celebrated in Spain, in memory of a famous victory obtained over the infidels on that very day in the year 1212. Remembering that great event, the pious brethren were now encouraged to hope, that by means of the sacred symbols displayed on this occasion, they would gain a new victory, not less dazzling than the former, tending to the discomfiture of the whole infernal army marshalled against true religion by the enemy of man; and that it would be theirs to bring the unlettered gentiles of California to a knowledge of the Saviour, and to a just appreciation of the truths of Christianity. The task which they imposed upon themselves was no easy one to perform, but steadfast perseverance, they persuaded themselves, would, under the Divine blessing, eventually be crowned with success.

Their first steps were not very encouraging. The natives could not understand the objects of the strangers. To one of the huts they had erected, and which was reserved to be a place of worship, they endeavoured to allure the natives, not only by gentle invitations, but by presents of various articles to which they seemed

inclined to attach importance. The presents were received with marks of satisfaction, save when provisions were offered to them, which on no account were they disposed to eat. On one occasion a morsel of meat belonging to the missionaries being placed in the mouth of a child, it was spit out with signs of horror and disgust. Notwithstanding the disappointment they experienced, the pious Franciscans represented the objection of the Indians to partake of their food, as an instance of the miraculous interposition of heaven in their favour. They did so with some reason, for had the Californians been as anxious to gain their eatables as they were to obtain anything in the shape of cloth, all belonging to the expedition would hardly have escaped starvation. The eagerness of the Indians to obtain a supply of anything like cloth was so great that one night they boarded the ship in the bay from their tule-canoes, and cut a large piece out of one of the sails. Care was taken to guard against a repetition of the outrage, but the avarice and the courage of the Indians continuing to increase, they adopted the resolution to murder all the missionaries, in order to obtain the property which they had brought with them. They made several attempts to accomplish this object, but with no favourable result. On the 15th of August, Father Fernando having gone on board to say mass with two soldiers, and four only remaining on shore, with the President and Father Viscano, they were suddenly assailed by a crowd of Indians, all armed as for war. Their object was avowed not merely by words, but by prompt undissembled actions, as they began to seize and appropriate everything they deemed of value, taking even from the sick the sheets on which they had rested. Observing these outrages, a corporal on duty gave an alarm, and when the Indians saw the soldiers putting on their leather armour, and snatching up their muskets, they betook themselves to their bows. The four soldiers, assisted by the carpenter and the blacksmith, fired on the Indians. The blacksmith wore no armour, but he fearlessly advanced, exclaiming, "Long live the faith of our blessed Redeemer, and death to the dogs who are not afraid to be his enemies." During the struggle, the Father-President entered the church, and there put up a prayer to the Almighty for deliverance, beseeching him that no deaths might occur in the ranks of his own people, or among their opponents; that those might not be lost for ever whom he hoped to have the felicity of saving from perdition by baptism. The contest was not immediately brought to a conclusion; the loud discordant yells of the Indians were still heard, when a boy, whose name was Joseph, entered the hut in which the President remained, and seeing him there, approached him, saying:—"Father, give me absolution immediately, for the Indians have killed me." The pious Franciscan hastened to comply with the youth's request, and the lad died a few moments afterwards, an arrow having passed through his throat. The operation of the fire-arms soon disconcerted the assailants, and they retired with precipitation, carrying off with them, however, their dead and wounded. The latter soon returned,

entreating that their wounds might be cured. This request was benevolently attended to, and seemed to call forth feelings of gratitude. They, notwithstanding, still laboured to defeat the object of the missionaries, but made no appeal to arms. One young Indian, who was about fifteen years of age, visited the mission frequently, and, by degrees, became very familiar, and would freely partake of any food that was set before him. Junipero was anxious to make him acquainted with the Spanish tongue, and when this was so far accomplished that he could understand what was spoken to him, the venerable father desired him to try to bring an infant, with the consent of its parents, to be baptized, and become a Christian. He represented to him, that the father by permitting a little water to be poured on the child's head, would cause it to become a son of God and of father Junipero, and also a brother of the soldiers, and that it would not only be clothed like Spaniards, but might become, in every respect, their equal. The youth understood what was desired, and after going among his countrymen, he returned with a party of them, of which one held a child in his arms, which he intimated it was his purpose to have baptized. At this Father Junipero was greatly rejoiced. Clothes were immediately brought for the child, the corporal was invited to be its godfather, and the soldiers were ordered to attend this the first celebration of the baptismal ceremony, and all the Indians then at hand were requested to be present. The preparations necessary were soon brought to completion, and the water was about to be poured on the infant, when the Indians, as if possessed by sudden terror, snatched the child away, and withdrew to their huts. The soldiers were highly indignant at witnessing such conduct, and a great exertion was necessary to stay them from punishing it too severely. This was happily prevented, and they were made to feel that it was beneath the dignity of civilized men fiercely to chastise the ignorance of miserable barbarians.

The writer says :—"Father Junipero was deeply afflicted by this disappointment. He ascribed the conduct of the Indians to his own sinful state, and it so oppressed his mind that for years afterwards he could not relate the circumstance without shedding tears." No sufficient subsistence could at that period be obtained from the country where the missionaries resided, and they were obliged to claim supplies from San Blas. The San Antonio had been dispatched thither, and, not returning as expected, was supposed to have foundered. Under these circumstances, the governor ordered an account of the provisions on hand to be taken, when it was found that their stock must be completely exhausted in the month of March ensuing, and he felt it his duty to intimate to the President that unless provisions should arrive by St. Joseph's day (March 20), the expedition must set out on its return by land for Old California. Greatly distressed at this, Father Junipero is said to have felt that he had no recourse but to appeal to the Most High, whom he anxiously implored

not to permit their labours to be utterly lost by deferring the conversion of the Indians for an indefinite period. While he thus prayed for succour to the Source of all Good, for himself he resolved not to accompany the expedition on its return, but to remain where he was, still zealously pursue the object of the mission, and, if necessary, even sacrifice himself for the glory of God.

The day arrived, mass was chanted, a sermon was preached, prayers were made, and every preparation for the contemplated departure was completed, when, according to Father Palou, "the Omnipotent was pleased to attend to the earnest solicitations of his servants, and the intercession of the most holy patriarch, and every one clearly and distinctly saw a vessel approach." Their joy, however, was severely damped on the next day, at finding it was no longer in sight. Still their departure was postponed, the apparition of a vessel being held to have been interposed for their comfort by the patriarch's saint to re-assure them. They determined to remain some time longer, being persuaded that if they had not seen the San Antonio herself, they had seen that which was a sure presage of her speedy arrival. Their faith was somewhat severely tried, but four days after the San Antonio entered the harbour. It was the San Antonio which they had seen, but which had been prevented by accident from entering more speedily. All was now joy and pious exultation, and the Father-President publicly made a solemn vow to celebrate the miracle they acknowledged, by an annual mass on St. Joseph's day: a vow it is said which he most religiously kept.

It was resolved to make another effort to discover Monterey; on which mission Father Junipero sailed in the San Antonio, and the Governor went by land, Father Crespi being associated with him. They both departed from San Diego about the middle of April, 1770, and, after nearly seven weeks' voyage, the San Antonio cast anchor in Monterey Bay, where the land expedition had arrived eight days previously. That 46 days should have been consumed in the passage by the Antonio shows nautical science was not then very successfully cultivated by the Spaniards. In a letter written to Father Palou by the President, he describes an assembling of the officers and all the people on the 3rd of June, being the holy day of Pentecost, at the foot of an oak, where an altar was reared, and the bells caused to be rung. The "*Veni Creator*," was then sung, the water and the grand cross blessed, and the first mass ever celebrated there was chanted. The "*Salve*" was sung before an image of the Virgin, which was followed by a sermon and "*Te Deum*," and the various religious ceremonies being concluded, the whole party dined together, and the ceremony ended with rejoicings, salutes being fired by the troops and the vessels. The mission of Monterey was immediately afterwards founded, and the Spaniards proceeded to erect a chapel. The firing of the guns and musketry had so alarmed the Indians that for some time afterwards they kept at a distance, but on the day after Christmas-

day the baptismal ceremony was for the first time performed on an Indian at Monterey, to the great joy of Father Junipero. The missionaries, however, even after this, made little progress in the work of conversion, as the reverend father in the course of three years could only boast that 175 Indians had been admitted into the bosom of the church.

It was found that the site first chosen by the missionaries was by no means the most eligible that might have been selected, and they judged it expedient to move to the borders of the river Carmelo, where they selected a permanent resting-place. The Father-President discovered in that vicinity many spots where missions might be advantageously placed, and he wrote to the chief of the college of San Fernando that it would be desirable to send out more missionaries, as abundant occupation might be provided for them. This recommendation was soon acted upon, and thirty missionaries were forwarded from Mexico to San Blas, twenty of whom were destined for Lower, and ten for Upper California. They carried with them 10,000 dollars, sacred vessels and ornaments for the churches, and other requisites to establish the contemplated mission. Ships were ordered to San Blas to convey the missionaries to the Californias, and the San Antonio again left that place carrying the missionaries for Upper California on the 7th of January, 1771, and reached San Diego on the 12th of March following, and thence the missionaries, who were all suffering from the scurvy, proceeded over-land to Monterey. The missionaries intended for Lower California, sailed in the San Carlos for Loreto, but instead of passing in a northerly direction up the Gulf of California, they were driven southerly to Acapulco. The captain then put into a port since known by the name of Mansanillo, and then sent word to the viceroy of Mexico that he could not proceed. In this situation, the missionaries, eager to commence the good work assigned to them, undertook to journey over-land to Loreto. It was a bold resolution. The distance was 1200 miles, and their way lay along a coast in which no regular roads had been made, which was nearly uninhabited, and which was beset with various dangers. Not the least of them was the character of the climate, which to Europeans had proved most fatal to health. The missionaries, notwithstanding these difficulties, persevered in their resolve, and advanced along the shore of the Pacific till they found themselves opposite Loreto, at a point from which they could easily cross to their destination. The captain, who had refused to proceed, having received positive orders from Mexico, ventured at last to sail from Mansanillo for Loreto, which he reached in August. The voyage, afterwards commonly made in five or six days, had occupied him eight months.

The new missionaries to Upper California having arrived, the Father-President hastened to establish the mission of San Antonio de Padua. The site selected for this purpose was in the hills of Santa Lucia, being about 20 leagues from Monterey,

and 8 from the coast of the Pacific. They had to encounter great difficulties, which however they met with equal resolution and address. In the year 1780 there was such a severe frost on the first day of the Pascua of the Resurrection, that a field of wheat which was in flower became dry, withered, and utterly spoiled. The calamity was wildly deplored by the Indians, and deeply regretted by the missionaries, who, however, invited the natives to put faith in the goodness of San Antonio. They caused the field which had been blighted to be artificially watered, and very soon fresh blades sprung from the roots of the former stalks; and, the watering being carefully continued, the new wheat so prospered that it was ripe at the proper time, and gave a more plentiful yield of fine grain, than had been obtained in any preceding harvest. The missionaries easily prevailed on the Indians to regard this as a special miracle wrought by the Almighty in their behalf, through the benevolent intercession of San Antonio. The fame of this incident was soon spread abroad, and had a powerful effect in bringing new converts to the mission.

The mission of San Gabriel was next to be established, and missionaries and soldiers were sent from San Diego for that purpose. The history furnished of this expedition by Father Palou states that on the 10th of August another pious father, a friar named Pedro Cambon, accompanied by Father Angel, Somera, with ten soldiers, besides muleteers and beasts of burden, left San Diego to advance northerly in the track of a former expedition. Having marched 40 leagues, they found themselves on the banks of a river named Temblores, and while exploring the ground to find a situation to their mind, a host of armed Indians approached them with horrid yells, apparently bent on offering every possible resistance. The danger was imminent, but Cambon and Somera in this moment of peril displayed to the barbarians a piece of cloth bearing the image of Our Lady de los Dolores. The effect of this was prodigious, as the Indians were at once overawed, and induced to throw their weapons away, while their two leaders hastily advanced to lay the beads which they wore about their necks at the feet of Our Lady, at the same time intimating their wish to be at peace. They were received with courtesy and good-will, and the tidings being promulgated in the neighbourhood, men, women, and children crowded to look on the venerated image of the Virgin, some of them offering her food. By this expedient the Indians were said to be completely reconciled to the intruders, and to rejoice in their coming. The mission was then founded with the usual ceremonies, the first mass being chanted under a tree on the Nativity of the Virgin, September 8th, 1771. This became one of the richest missions of California. It is probable that some of the settlers had the good fortune to discover the precious deposits which nature had placed in that region, and the probability is they thought it a matter worth keeping secret from their distant brethren, and even from his Holiness the Pope. Father Junipero, however, writing on the success of the

missionaries in 1772, could only exult that he was in good health, and not suffering from hunger, and that there would be no necessity for abandoning the missions. His people he stated to be chiefly maintained by the Indians, but he added, they lived God knows how. Their supply, such as it had been up to that period, seemed likely to fail, and his best consolation was, that whatever troubles he and his coadjutor might know, there were various souls in Heaven from Monterey, San Antonio, and San Diego; and though there were none as yet from San Gabriel, there were many converted Indians who had been taught to praise God, and whose holy name was in their mouths oftener than in those of many born Christians. At times he had feared that those who were then lambs would again become lions and tigers, but his experience led him to hope that such would not be the case, and when some of the natives should have learnt Spanish, he expected to announce still more gratifying results. It was his wish that other missions should be established, and he hoped those who might be sent would come well provided with patience and benevolence. He added in a tone of solemn playfulness, "There they might become rich, he meant in troubles; but where could the labouring ox go, and not be forced to draw the plough; and where, if he did not draw the plough, could there be any prospect of a harvest?" If the gold secret were then in his possession he kept it well.

Four missions having been formed, the Father-President set out for San Diego with a view of returning to Mexico. A fifth mission was founded by him on his way, which was called Obispo de Toloso. He embarked from San Diego in October, and reached Mexico early in the month of February. Bucareli, the viceroy, had resolved upon withdrawing the marine establishment from San Blas, but Junipero prevailed upon him to continue it, as it was only through San Blas that communication could be kept up with California. The viceroy ordered a packet boat to be laden with provisions and forwarded to Monterey. The packet was so long on its passage, that missionaries, soldiers, and Indians were nearly starved before its arrival, as during eight months they had little to subsist upon but milk. The Father left Mexico on his return in September, 1773, being accompanied by various missionaries, officers, and soldiers, and taking with him large supplies of food and clothing. An expedition was at his suggestion sent out to discover a route by the rivers Gila and Colorada, in order to avoid a repetition of the misfortunes which had been experienced at sea. An officer named Juan Bautista Anza, commandant of Tubac, in the province of Sonora, was appointed to command this expedition, and reached Monterey without accident. Junipero went to San Blas in January, and after having made such arrangements respecting the supplies as he deemed expedient, set sail in a new frigate called the Santiago of New Galicia, of which his friend Don Juan Perez was commander. The passage was tedious; the ship did not reach San Diego till the 13th of March, having been 49 days on her passage. The vessel went on her way to

Monterey, but Father Junipero did not proceed with her, as he had decided on making the rest of the journey overland, in order that he might visit the other missions. He met Captain Anza, who had travelled overland from Sonora, and from whom he learnt that a communication could be opened by the route he had pursued, and this, by order of the viceroy, he was proceeding to effect. At that time Monterey was in such distress for want of provisions, that the president was assured the missionaries had not so much as a cup of chocolate to break their fast with, but were forced to sustain themselves wholly on milk and herbs. This sad intelligence induced him to go forward with all possible speed, with the supplies in his charge. He entered Monterey on the 11th of May, where he learnt that the frigate had arrived on the 9th. His arrival called forth great demonstrations of joy, which from the abundance and comfort associated with his appearance, it will easily be supposed were really sincere.

After this several small expeditions were dispatched by the viceroy to make discoveries which were not more fortunate than their predecessors. Much time was consumed, the crews suffered from scurvy, and no important discovery was made. Two expeditions had failed when Bucareli resolved on a third. A new frigate was built at San Blas, and called the *Princesa*, and a vessel purchased in Peru, called the *Favorita*, was to be her consort. They were ordered to be supplied with everything requisite for a twelvemonth's voyage, and the expedition was placed under the command of Don Ignacio Artiago. Its chief object was understood to be to find a passage to the North Atlantic. On the 3rd of June, having attained 55° of north latitude, they entered a strait, which they named the Strait of Bucareli. In about 60° N. lat. Artiago reported that he had found a large port quite secure, and well provided with wood and water, as well as presenting an abundant supply of fish. They named it Santiago, being, it is supposed, what is now called Cook's Inlet. After some further efforts to explore the neighbouring coast, he returned to Port San Fernando in September, 1779, when mass was performed in honour of the happy result of the voyage.

Some of the perils to which the Jesuits were exposed in California were greater than any which have yet been recounted. The year after the return of the President from Mexico, a deliberate plan was formed by the natives to make an attack on the establishment at San Diego. According to Father Palou, the great enemy of mankind was exasperated at the progress of true religion, and in order to check it, induced two converts who had been some time baptized, to report among the Indians that the Franciscans intended shortly to compel them by force to embrace Christianity. The majority gave credence to the recusants, and formed a conspiracy to burn the mission, and to murder the fathers and their military defenders. Upwards of a thousand Indians assembled and divided themselves into two companies, one to attack the mission, the other the Presidio, where the soldiers were stationed. Having

advanced to the bed of the river on the 4th of November at night, the party intended to act against the mission reached the hovels of the converts without being seen. They placed a guard over them, threatening vengeance if they gave the alarm, and then entering the church in order to purloin the sacred ornaments, some of them attempted to set the quarters of the soldiers on fire. The military force here posted was insignificant, seeing it only comprehended a corporal and three men. They were roused from sleep by the yells and shouts of the assailants, who had begun to discharge their arrows. Father Vincente, with two boys, joined the soldiers. A Father Louis slept in a separate apartment. Hearing the tumult, he advanced towards the Indians, and addressed them in the usual terms—"My children, love the Lord," when he was suddenly seized, and being carried to the side of a river, his clerical dress was torn off, and they commenced beating him with their clubs, and at the same time he was wounded by many arrows. He fell, covered with wounds, and expired, and when his murdered remains were found, his consecrated hands were the only portion of his person that remained unlacerated.

While this butchery was proceeding others of the assailants got to the sleeping-place of two carpenters and the blacksmith. The last started up and ran out, with his sword drawn; an arrow was discharged at him, and he fell dead. One of the carpenters fired a loaded musket, and this so alarmed the Indians that they fell back and enabled him to join the soldiers. The other carpenter, who was ill, was killed in bed by an arrow. The main force of both parties of the Indians now advanced against the soldiers, who boldly employed their fire-arms, killing and wounding many of the enemy. This checked their advance, but the quarters of the military being fired, they had no alternative but to leave them or be burnt. They accordingly rushed out, and took possession of a hovel built of dried bricks, which had been used as a kitchen, and here they defended themselves by keeping up a constant fire on the crowd. The arrows and wooden spears of the enemy gave them annoyance, more especially from one part of the hut, which wanted a wall. The open space the soldiers determined to fill up with bales taken from the house which had been fired. This was done, but in doing it two of the party were so wounded as to be disabled from giving further assistance. The corporal, one soldier, the carpenter, and Father Vincente, were now all that remained to oppose the multitude without. The corporal, who was a good marksman, directed the others only to load and prime, while he fired off the muskets; and by this arrangement many of those who approached were laid low. The Indians fired the covering of the kitchen, but as the materials were very slight, the defenders still maintained their position. The Indians then threw burning faggots and stones into the hovel, and this warfare continued through the night, when the assailants withdrew, carrying with them their killed and wounded. All the defenders of the hovels had wounds, but the corporal

TOPOGRAPHY OF

concealed his, while the attack continued, in order to avoid creating alarm among his companions."

This contest is described with great minuteness and solemnity by Father Palou, and appears to have been the most serious attempt made to oppose the spiritual conquest of California, which was the object of missionary ambition. When news of what had occurred at San Diego reached the Father-President at Monterey, he went by sea to that place, and exerted himself to repair the damages done by the Indians. He afterwards formed another mission, which was called that of San Juan Capistran. In one place he was about to be attacked, but a convert who accompanied him had the presence of mind to call out in the Indian dialect—"The soldiers are close at hand," upon which the hostile party joined the missionaries in a friendly way. The President then returned to Monterey, and resolved to establish a mission in the name of San Francisco, on the borders of the bay so named. For this purpose he left Monterey June the 17th, 1776, with a few soldiers and several families, taking with them black cattle, mules, sacred ornaments, priests' vestments, and other articles requisite for a new establishment. A packet boat was sent at the same time to the harbour of San Francisco. Various circumstances caused delay, but on the 17th day of December, the festival of the Impression of the Sores of San Francisco, after blessing and erecting the holy cross, the first mass was chanted. *Te Deum* was afterwards sung, and the business of the day was concluded by the firing of artillery and musketry by sea and land.

However the missionaries might boast of their converts, it does not appear that any of the natives attended their religious ceremonies. In the middle of August a party of their native friends was surprised by the Salones, a hostile tribe, who killed many of them, and fired their huts. This gave them such alarm, that for a long time they feared to approach the missionaries. By degrees their terror subsided, and the work of conversion proceeded. The president, Junipero Serra, died in 1782, at which time eight missions in all had been established. He died at the age of 71, having been 54 years in holy orders. He was followed by able and zealous successors, who industriously pursued the track which he had marked out for them. So few departures from the system originally established occurred, that little interest would attach to a detailed history of the several missions. At various periods pious Spaniards atoned for the irregularity of their lives by giving large donations to the missionaries at their death. Great estates were willed to some of them; and, indeed, these were so many and so extensive that it has been affirmed, the whole of the littoral territories of California, with all their inhabitants, came under the temporal and spiritual dominion of the missionaries, and no emigrant could settle there without finding himself compelled to shape his conduct according to their views.

THE UNITED STATES.

CHAPTER XII.

ADEQUATE funds being thus supplied to the missionaries, their career was prosperous, and their power was great. Their possessions, from time to time, were largely augmented, as well as their stock of domestic animals; and the converted Indians, increasing in number, occupied nearly the whole of the valuable lands, to the total exclusion of white settlers, whose presence, from more reasons than one, was, perhaps, thought by the missionaries anything but desirable. The soldiers who were allowed to be there, were not permitted to leave too many of their descendants, as that, it was conceived, would prove injurious to the missionaries. No land could be possessed but by a grant from them, and they were always reluctant to make such grants. It was constantly declared, that the great objects of the missions of the Californias was, to extend a knowledge of the true religion. The general-commandant of the troops in the country was governor of all places and persons not under the immediate authority of the fathers. He resided at Monterey, and had an income of 4,000 dollars, and without authority to interfere in the ordinary affairs of the mission, he was bound, on extraordinary occasions, to afford them assistance.

We learn from the authority on which the foregoing facts are given, that before the Spaniards were settled here, the Indians exerted themselves but little to raise produce from the soil. Fishing and hunting were their principal occupations. Fish and game abounded, hares, rabbits, and stags were plentiful; otters and sea-wolves were found towards the north; and in the colder season they killed many bears, buffalos, foxes, wolves, and wild cats. The coppices and plains produced numerous coveys of small crested partridges, fat and of good flavor, and the trees afforded shelter to a vast variety of birds and fowls. The fertility of the soil and the country adjoining the Presidio were exceedingly great; and the harvest of maize, wheat, barley, and peas, were only equalled by those of Chili, the average produce of corn being eighty-fold. The Franciscans exercised great authority over the

Indians, and the residence of the monks bore the appearance of a plantation in any other colony. The men and women were called together by a bell, and were led by a monk to church, and to their various employments. The whole produce of the earth was committed to the management of the missionaries. They divided the day into seven hours of work and two of prayer; but on Sundays and feast days, four or five hours were devoted exclusively to rest or religious exercises. Indians of both sexes who neglected these, were subjected to corporal punishment, and many offences, which in Europe are left to divine justice, were punished with chains or the stocks. When a new convert was baptized, he was required to make a vow to be faithful to the brotherhood. If he deserted from them and returned to his relations, he was thrice summoned to return; and if he refused compliance, a party of soldiers were sent by the governor to take him by force from his family, and carry him back to the mission, where he was subjected to the lash. The Indians were accustomed to rise with the sun, and then go to prayer and to mass; and while thus engaged, barley-meal was prepared for them, boiled in a cauldron, which they ate without butter or salt. After this mess, which was called *atole*, the Indians were employed under the superintendence of Jesuits. At noon the bell rung for dinner, and then a mess, similar to the *atole*, save that it was thickened with peas and beans, and called *pusole*, was distributed amongst them. On feast-day they were allowed beef, which many of them were accustomed to eat in a raw state. They are said to have been remarkable for their honesty. The Jesuits undertook to secure female virtue by locking up, an hour after supper, all those whose husbands were absent, as well as all girls above nine years of age, who were placed under the care of experienced matrons through the day. Polygamy was formerly common among them, and it was customary for a man to marry all the sisters of a family.

That great revolution which separated the republics of South America from the government of Spain, led to important changes in the condition of California. The ancient system had remained in full force up to that period, but when Mexico declared itself free, Upper California was formed into what was called a territory, and Lower California into another. The number of inhabitants in either not being sufficient to entitle it to become a Federative State, it was not privileged to have a governor, or a legislature, but was under the immediate government and legislation of the general government of Mexico. California was in consequence administered by an agent of the government, who was named commandant-general. The two Californias sent each one member to the general congress. These members were elected by popular suffrage. The first deputy returned for Upper California was a captain in the army, and a Spaniard by birth. On reaching San Blas, he found that by law, born Spaniards could not sit in the Mexican congress. A lieutenant was

then elected in his place, who died shortly after, when a sergeant of the same corps became his successor, and took his seat in the Mexican congress.

But a few years had passed after the dominion of Spain over Mexico had ceased, when the missionaries were ordered to liberate all the Indians of good character, who, having been taught the art of agriculture, or some trade, were capable of maintaining themselves. Portions of land were to be given to them, and the district divided into parishes, with curates, while the missionaries' salaries, formerly paid by government (400 dollars per annum), were suspended. The Indians, thus liberated, soon found that freedom could not supply the place of food. Those who had been accustomed to the discipline of school-boys, becoming on a sudden their own masters, indulged in foolish excesses, gambled away their clothes, implements, and their land, and had recourse to begging or robbing, and gave such annoyance to their neighbours, that the Franciscans were requested to take them back to the mission, and some of them were put in irons and condemned to hard labour. The remonstrances of the Jesuits then led to the restoration of their salaries, and a promise that all arrears should be paid up, on their consenting to be subject to the new government. The disturbed state of Mexico, however, prevented the missions from regaining their former prosperity, but their lands having increased in value, they were still able to maintain themselves. Additional missionaries were sent to them during the presidency of Bustamante.

The Indians were proved to be helpless when left to themselves; this produced destitution, and destitution its natural offspring, fraud and violence. Yet, originally, the character of the Californians was not deformed by the more odious vices. We are told by Rees, whose facts are drawn from *La Pérouse*: "Such is their honesty that no example occurs of their robbing one another, though they have no other door than a truss of straw laid across the entrance when the whole family is absent. The converted Indians retain all their ancient customs that are not forbidden by their new religion; the same huts, the same games, and the same dresses. The richest wear a cloak of otter-skin, covering the loins, and reaching below the middle; others wear only a piece of cloth to cover their nakedness, and a little cloak of rabbit-skin, covering the shoulders, and reaching to the loins, and tied with a pack-thread under the chin. The women's dress consists of a cloak of stag's-skin, badly tanned. Young girls under nine year's old, have only a girdle round the loins, and the boys are wholly naked. The hair of both men and women is cut four or five inches from the roots. The Indians of the 'Rancherias,' or villages of independent Indians, having no iron utensils, perform this operation with fire-brands, and paint their bodies red, which they change into black when in mourning. They retain an affectionate remembrance of their deceased friends, and are easily melted into tears by the mention of them: nevertheless, children scarcely know their own father,

because they desert his hut as soon as they are able to provide for themselves ; but they are more durably attached to their mother, who brings them up with care and tenderness. The old men of the Rancherias who are no longer able to hunt, live at the joint expense of the whole village, and are treated with general respect. Their arms are the bow and arrow, pointed curiously with a flint. These Indians neither eat their prisoners nor their enemies killed in war; although when they have conquered, and put to death famous chiefs and very brave men in the field of battle, they eat some morsels of their bodies, thus doing homage to their valour, and apprehending that such food would increase their courage. They are accustomed, like the Canadians, to take off the scalp of the vanquished, and to tear out their eyes, which they have the art of preserving from corruption ; and it is their practice to burn their dead, and to deposit their ashes in a morai. The mixed government exercised in the missions of California is, with regard to the Indians, a real theocracy; for they are taught to believe that their superiors hold an immediate and constant intercourse with God, and that they bring him down each day upon the altar. Under favour of this opinion, the fathers live in the midst of the villages in perfect security, nor do they shut their doors during the night. Murder is very uncommon, even among the independent tribes, and is punished only by general contempt; but if a man falls under the united attack of several assailants, he is supposed to have deserved his fate, as he had drawn upon him so many enemies. M. La Pérouse observes, 'that the sense of taste is that which these people most delight in gratifying; and the word 'Messiah,' which in their language signifies a good man, likewise denotes savoury food. Among other peculiarities of these people is their gaming; less remarkable for the ingenuity of their games, than for the nature of the stakes; among the Indians of the missions, the common stake is beads; but among the independent Indians the favours of their women are the prizes.'"

The aboriginal Californians, La Pérouse found taller than the Chilians, but deemed them less courageous and acute. Their chief characteristics were low foreheads, black and thick eyebrows, black and hollow eyes, a short nose depressed at the root, and projecting cheek bones. They had large mouths, thick lips, and fine teeth. They were for the most part considered indolent, and manifested so little curiosity as to be generally deemed stupid. The women were commonly tall, their countenances somewhat agreeable and were usually without hair, but this was said to have been the work of their own hands, as they were constantly plucking off the hair from their persons with bivalve shells, or a cleft stick. It was their constant practice to paint their skin by way of ornament, and to pierce their ears in order to wear trinkets in them. Their skin was a lighter hue than that of the Chilians, and males reached puberty about the thirteenth year, and females a year or two earlier.

They were divided into hordes, each of which formed a small hamlet, and their houses or wigwams were of different shapes, and formed of various materials. Some chiefs, who were renowned for courage or strength, or who were of superior stature, exercised authority over the small communities. These personages wore a peculiarly decorated head-dress, and were otherwise distinguished from their countrymen. The dress of the females consisted of a leathern under garment worn next the skin, and covering the person from the shoulders downward. Over this a mantle of skins was thrown, which was somewhat longer than the last-mentioned garment, and descended to the knees. The men wore similar attire. Some of them had buskins of sealskin, but their feet were commonly bare.

The climate of California, at certain periods of the year, was found very detrimental to health. Sudden changes of temperature inflicted various diseases on the inhabitants. In the winter, sore throats, catarrhs, pleurisies, and peripneumonies, were generally prevalent; and ephemeral and intermitting fevers and dyspepsia, were experienced in spring and autumn; and for these they sought relief by vomiting, provoked by thrusting the finger into the throat, and by a rude kind of sweating-baths. In summer, putrid, inflammatory, and bilious fevers, and dysentery, were expected, which carried off numbers in every year. Other complaints, such as rheumatism, prurient eruptions, ophthalmia, and epilepsy, were among the ills to which they were subject; and to these syphilis may be added, which, however, it is believed, was unknown to the Californians till after Europeans had settled among them. This tallies with what modern writers report. Mr. Martin says:—"Like other places on the west coast of America, extremes of heat and cold prevail; on the coast, blustering winds, and in the valleys of the interior, intense heat, with sudden blasts of cold air from the snow-clad mountains, which bring on remittent fevers. The marshes exhale noxious vapours, which produce fevers and agues. The N.W. winds seem saturated with icy particles, and render fires indispensable in summer. The rainy season begins in November, and ends in March; and although there may be only one rainy day in each week, it is difficult to work, by reason of the floods which descend from the hills and mountains."

When a woman gave birth to a child, it was common immediately to plunge the infant into cold water, and, at the same time, the mother bathed in the sea, or in the nearest river, after which she was placed on a hot stove, and covered with furs, so as to produce intense perspiration. She was then allowed to rest till the sweating had subsided, and the stove become cool, when she was again immersed in cold water. This process was repeated for several successive days.

Little is known of the religion of the Californians. Till after they had been visited by Europeans, they are believed to have had no temple, no altars, or, indeed, any place, especially set apart for devotional exercises. They made no outward

profession—they had no solemn festival—no public prayers, or vows, or sacrifices. It is believed, however, that, like most wild people, they had some confused idea of an invisible Almighty Power that governed all things; but on this subject very scanty information has been procured, save that which it pleased the Jesuits to furnish, and that, for obvious reasons, it would be rash implicitly to believe.

In so vast a region comprehending so many degrees of latitude, there must, as a matter of course, be varieties of soil and climate, and with these the productions of the former must be varied. In the morning there is, through a great part of the year, a heavy fall of dew, which settles on the rose leaves, candies there, becomes hard like marrow, and has all the sweetness of sugar without its whiteness. In the interior, extensive plains of salt are found, firm, massy, and clear as crystal; and at the time when this description was furnished, it was added, “the pearl fishery on its coast, and its *mines of gold*,” offered materials for carrying on a beneficial commerce.

It was soon resolved that a change should be made in the system of California, on Mexico becoming an independent republic. Such, at least, was the general understanding that prevailed; but, notwithstanding this, eleven Franciscan friars, with a prefect at their head, were appointed to govern and instruct the Californians. They are described by one who had opportunities of observing their motions, to have been singular in their appearance, as all had shaven crowns, wore a habit of the coarsest grey cloth, and sandals on their feet. It would seem, however, that they had little save ardour in a course which they believed to be good, to fit them for the mission on which they were sent, as of worldly affairs in general they were profoundly ignorant. In their demeanour they were humble and pious, and christian faith made them superior to danger. This was very conspicuously shown on their voyage, or at least while the vessel in which they had embarked was in the bay of Matzantas, when a flash of lightning passed along the mizen mast to the hold, and set fire to a portion of the contents of the ship, which lay near the powder magazine. Among the crew all was alarm and clamour, but the devout friars, calmly resigned to their appointed lot, indicated no weak apprehension, but found in devotional exercises the only solace they required. “So little,” it is added, “were they affected by the general excitement, that the people of the ship were obliged to remove them by force from the hatch, in order to secure the magazine which was directly under them. In that awful hour they remained perfectly unmoved, though a single spark from the blazing materials might in a moment have blown them to atoms.” When the danger was over the ship sailed to San Lucas, where general Figueroa, the newly-appointed commandant-general of Upper California, with some troops were to be taken on board. The friars who had suffered much from sickness, took the opportunity of going on shore, and the general then gave orders that the

embarkation should take place the next morning. When the time arrived for putting off, a mutinous spirit having been displayed by the troops, the general and superior officers were informed by a sergeant, that he and his comrades were resolved not to proceed to Upper California, having made up their minds to declare for general Santa Anna, who had revolted against the government. It was their intention to proceed to San Blas, to join their brother patriots. They not only manifested their disobedience in words, but they fired upon the quarters of the general, and he and the officers were forced to consult their own personal safety by a precipitate retreat. The mutineers then took possession of the ship, and having seized the military chest, which contained 16,000 dollars, they ordered the captain to sail for San Blas. Out of the booty seized by these desperadoes, the sergeant, their ringleader, sent 3000 dollars to maintain the friars, who now found themselves in a strange country, which was almost a desert. They had suffered so much on their voyage, that they had resolved not to trust themselves again on the ocean, and proposed to pursue their journey by land, taking the route marked out by father Junipero many years before. This resolution, however, they eventually abandoned. The difficulties which lay in their way were too great to be encountered, and in the end they proceeded to Lapaz, there to remain till they could receive new instructions from Mexico. The ship proceeded to San Blas, where the mutineers were received with open arms by the adherents of Santa Anna, and after a time, being provided with fresh stores, she proceeded to Lapaz, where the friars were induced again to embark, and were safely conveyed to California. A law was soon passed by the Mexican congress, for removing the missionaries, dividing the lands and cattle amongst the Indians and settlers, and appropriating their funds in Mexico to the service of the government. Commissioners were appointed by the democratic party to carry this law into execution, and they were authorised to engage emigrants in Mexico to accompany them, who were promised half-a-dollar a day till they should arrive in California, with a free passage, and provisions gratis on the way. These tempting offers were embraced by nearly 300 people, men, women and children. According to Forbes, "they were of every class of persons except those that could be useful;—for there was not one agriculturist among them. They were chiefly from the city of Mexico, and consisted of artisans and idlers, who had been made to believe that they would soon enrich themselves, without toil or care, in this happy country. There were to be seen goldsmiths proceeding to a land where no gold or silver existed; blacksmiths to where no horses were shod, or iron used; carpenters to where only huts without furniture were erected; shoemakers to where only sandals of raw hide were worn; tailors to where the inhabitants only covered themselves with a blanket; doctors to where no one gets rich; there were also engravers, printers, musicians, gamblers, and other nameless professors, all bound on

this hopeful crusade, which their enthusiastic leaders assured them would procure unalloyed felicity, and unbounded riches."

There is something very remarkable in the paragraph just quoted. It shows that in 1833, certain parties professed to have a conviction that "unbounded riches" were to be found in California; yet six years afterwards, when the passages above written were given, it was said, goldsmiths were seen "proceeding to a country where no gold or silver existed." Putting these facts together, they would almost warrant the inference suggested by former circumstances, that at that period some few persons were apprised of the treasures which might be found in California, but that subsequently, as had been the case for centuries before, the secret was admirably kept.

The adventurers, or shareholders, induced to engage in this enterprise, were not more fortunate than shareholders in England have usually been. The Spanish projectors of the new colony put forth, *secundem artem*, a flourishing prospectus of the *Compana Cosmopolitania*, or Cosmopolite Company. Agriculture, manufacture, and commerce, were announced to be the objects to which its attention was to be directed, and those, it was boldly predicted, would be carried on a scale of great magnitude, and with the fairest prospect of astonishing success. Governors, directors, secretaries, clerks, inspectors, &c., &c., were duly engaged. Shares were opened to all who chose to try their fortune; and 8000 dollars (£1600), were actually obtained. The prospect of despoiling the missions of the enormous wealth that they were reported to have accumulated, was to many exceedingly attractive; but immediately after they had left San Blas, general Santa Anna being placed at the head of the government, displaced Gomez Farias, the leader of the democrats. This was fatal to the hopes of the emigrants, as a messenger was sent overland, by the way of the Rio Colorado, round the head of the Gulf of California, for the express purpose of restraining the Californian commissioners. They, with the emigrants, had a long passage from San Blas, so that on their arrival they found Santa Anna's messenger had got there before them, and general Figuaroa refused to admit of their commission. They were offered lands, which they were told they might occupy as emigrants. They felt themselves greatly aggrieved, and strongly remonstrated, but to no purpose, for they could obtain no redress. They at length retired to a spot on the bay of San Francisco, where they subsisted for a time on provisions obtained from the nearest mission. To other emigrants they became objects of suspicion, and were accused of entertaining views hostile to the existing government, which eventually led to their banishment from the country in May, 1835, when the leaders of the expedition, and some of the ruined shareholders, returned to Mexico. This abortive attempt, patronised by the government as it was, proved very costly; and many of the individuals who engaged in it with the

most sanguine hopes of realising a fortune, were totally ruined by the miserable failure of the scheme.

California was long regarded as a country distinct in the main from Mexico. The two countries had little, if anything, in common, and it was anticipated that if attacked by a foreign power, the difficulty of conveying troops from Mexico to defend it, would render it an easy prey to a bold invader. It was, however, believed that its great natural resources, with a moderate population, would enable it successfully to withstand, supposing it to be an independent state, any attack that could be made upon it by a neighbouring power like Mexico. California might become a considerable maritime power; its coasts are considered favourable to health, it has good harbours, and ample materials for ship-building, and marine stores are at hand. On the part of Mexico a jealousy long existed of foreign emigrants, who might settle in California, from apprehension that they would be likely to breed discontent, and might eventually produce a revolution. This apprehension was by many treated as chimerical, but in the year 1836, a rising of the inhabitants of Monterey and its vicinity occurred, which was so formidable, that the commandant and troops of the garrison were forced to capitulate to a body or deputation of them. A meeting was held on the 7th of November of that year, in which a series of resolutions was voted. They were to the following effect:—

“Upper California is hereby declared to be independent of Mexico, till the federal system, which was adopted in 1824, shall be re-established.

“The said California shall be forthwith erected into a free and sovereign State, regulated by a congress, which shall frame laws for the country, and elect the supreme powers of the State, declaring the most excellent deputation constituent.

“The religion of the State shall be the Roman Catholic apostolic faith, not admitting the exercise of any other, but no dissenters shall be molested by the government on account of their religious opinions.

“A constitution shall be formed to arrange all branches of the administration provisionally, in conformity so far as practicable with the expressed declaration.

“Till the foregoing articles shall have been carried into effect, Signor Don Mariano Guadalupe Valejo shall be appointed commandant-general.

“The President for the ‘most excellent deputation’ shall communicate these resolutions to the municipal authorities of the State throughout the whole Californian territory.”

The malcontents did not rest satisfied with merely passing resolutions and disarming the garrison, but they proceeded to expel the officers of the Mexican government from all the situations to which they had been appointed, and they, in common with the Mexican troops, were ordered out of the country. Measures like these were more than sufficient to confirm the former suspicions of the govern-

ment, and steps were taken to quell the insurrection; but these proved as impotent to suppress rebellion as it has been seen the measures of the Mexican government were at a later period to repel a foreign enemy. It, however, issued furious proclamations, and addresses were published, calling upon the citizens to unite against the audacious and unnatural sons of the republic, whose treason demanded an immediate and signal chastisement. For this purpose it was declared that a formidable expedition should be speedily despatched from Mexico; but this expedition did not appear; and the government finding its proclamations inefficient, concluded, and perhaps rationally, that their arms would not accomplish more, and hastened to drop the unpleasant subject.

The Californians thus left to themselves, lawful authority being everywhere overthrown, the usual conflict of parties commenced, and where every one aspired to command, no government worthy of the name could be established. On this topic Mr. Forbes, in his "History of Upper California," correctly exhibited the weakness thus induced, and the following sentence will be found to embody something like a prophecy, of which the complete fulfilment has been witnessed:—"It is at least evident now (1838), if there was any doubt formerly, that it (Upper California) is at this moment in a state which cannot prevent its being taken possession of by any foreign force which may present itself. The British government seem lately to have had some suspicion that California would be encroached upon, if not taken entire possession of, by the Russians, who are settled so close upon its northern frontier; but by the latest accounts no encroachment has been made, nor has any augmentation been made either in the number of people in the colony, or in the fortifications. The danger does not lie there. There is another restless and enterprising neighbour, from whom they will most probably soon have to defend themselves, or rather to submit to: for although the frontiers of North America are much more distant than the Russians, yet to such men as the back settlers distance is of little moment, and they are already well acquainted with the route. The Northern American tide of population must roll on southward, and overwhelm, not only California, but more important States. This latter event, however, is in the womb of time; but the invasion of California by American settlers is daily talked of, and if Santa Anna had prevailed against Texas, a portion of the inhabitants of that country sufficient to over-run California would now have been its masters."

That the American people looked with a longing eye on California is unquestionably true. The climate was favourably reported upon; more so, even in official documents, than would seem fully authorised by impartial observers. An American officer, who has published an account of the advance of a detachment with which he was connected, into California, during the war between the United States and Mexico, gives in one instance a graphic picture of the careless indifference of an

American soldier to suffering and danger, which strangely contrasts with the eager anxiety manifested by the same individual to witness the conquest of California. He is represented as sleeping on the damp ground, a log of wood for his pillow, in the midst of a storm; when, being roused from his slumber, his first waking thoughts embody themselves in the exclamation—"Well, who wouldn't be a soldier, and fight for California!"

The writer proceeds with his narrative as follows:—

"'You are mistaken,' I replied.

"'How mistaken?"

"'Why,' I answered, 'You are not fighting for California.'

"'What the devil am I then fighting for?' he inquired.

"'For Texas.'

"'Texas be d——d; but hurrah for General Jackson;' and with this exclamation he threw himself back on his wooden pillow, and was soon snoring in a profound slumber."

Here it is seen, the American soldier was content to fight the battles of his country, and unrepiningly to endure every hardship, having the rich prize of California in view, but Texas, the ostensible cause of war, he regarded with utter contempt.

The writer just quoted, whom we have described as he describes himself, to be an officer, gives an account of the present state of California more favourable than those which former writers have presented to the world. According to him, wheat, barley and other small grain, with hemp, flax, and tobacco are reared in all its valleys without irrigation, which is only requisite to produce maize, potatoes, and garden vegetables. Oats and mustard grow spontaneously with such rankness and in such abundance as to be considered nuisances. "I," he writes, "have forced my way through thousands of acres of these higher than my head when mounted on a horse."

There are a greater variety of grasses in California than on the Atlantic side of the continent, and they are far more nutritious. They cover the face of the land, and are heavily reeded, and when ripe, the reed is as serviceable to fatten stock as the grains, which are used to feed horses and hogs. But, according to him, agriculture is, or was, before California was invaded by the troops of the United States, in a very deplorable condition. The farming implements in use were, with few exceptions, such as were employed three centuries before; such as the Romans possessed two thousand years ago. The substitute for a plough was the fork of a small tree, and the introduction of superior means of cultivation from the more civilized part of the continent, promised to be the source of immense and lasting benefits. Heretofore the principal produce of the country was its cattle and horses; the cattle are spoken of as being remarkably large and fine, and immense herds were annually slaughtered, principally for their hides and tallow, though their flesh was considered excellent. The horses and mules

were correspondingly numerous. "Wild horses were found in large numbers, with the elk, the black-tailed deer, the antelope, the grisly bear, the beaver, the otter, the coyote, the hare, the squirrel, and various small animals. On the coast and in all the rivers and lakes myriads of wild geese, ducks, swans, and water-birds meet the eye. Several islands near San Francisco were actually white with guano, a deposit of these birds, and boat-loads of eggs had been taken thence. The pheasant and partridge were found in the mountains."

On the subject of the minerals of California, a question of no small interest now, Mr. Briant, whom we have just quoted, says—"In regard to them not much is yet known. It has been the policy of owners of land upon which there existed minerals to conceal them as much as possible. A reason for this has been that the law of Mexico is such that if one man discovers a mine of any kind upon another man's land, and the proprietor does not work it, the former may denounce the mine and take possession of it, and hold it so long as he continues to work it. Hence the proprietors of land upon which there are valuable mineral ores conceal their existence, as much as possible. While in California I saw quicksilver, silver, lead and iron ores, and the specimens were taken from mines said to be inexhaustible. From good authority I learned the existence of gold and copper mines, the metals being combined; and I saw specimens of coal taken from two or three different points. Brimstone, saltpetre, muriate and carbonate of soda and bitumen are abundant. There is little doubt that California is as rich in minerals of all kinds as any portion of Mexico."

Food is so abundant in this region that the inhabitants of both Californias seem to attach little value to the vast multitudes of fish which may be taken off their coast. Among these may be mentioned the *Scomber colias* and another kind of mackarel, the torpedo and other species of rangia, achimara, and swarms of small fishes resembling the sardinia. Shell-fish are not wanting: mussels are found in great quantities, and these contribute largely to the subsistence of the Indians on the coast. Two descriptions of haliotis of large size are taken at Monterey; these are abundant and are in considerable request both with Europeans and Indians. These fish usually resort to the granite rocks, forming the south-east part of the bay. Their shells are much admired by the native inhabitants, who use them as ornaments for their baskets. Besides these, Forbes adds, "there have been noticed a few patella, limpet, turbo, cardium and mya shells and among other lepas a rare species of *L. anotifera* and *achilon tunicatus*."

CHAPTER XIII.

IN the earlier portion of this work we recorded the notice taken of the newly-ceded territory of California in the President's annual message.^a From that interesting document we possessed our readers of the opinions entertained on the subject by Mr. President Polk. He considered that—"The vast importance and commercial advantages of California had heretofore remained undeveloped by the government of the country of which it constituted a part. Now," he added, "that this fine province is a part of our country, all the States of the Union, some more immediately and directly than others, are deeply interested in the speedy development of its wealth and resources. No section of our country is more interested, or will be more benefited, than the commercial, navigating, and manufacturing interests of the Eastern States. Our planting and farming interests in every part of the Union will be greatly benefited by it. As our commerce and navigation are enlarged and extended, our exports of agricultural products and of manufactures will be increased; and in the new markets thus opened, they cannot fail to command remunerating and profitable prices."

With that partiality which every man is allowed to feel for the country of his birth, and especially for the community of which he is an eminent member, Mr. Polk fondly anticipated that America would keep the benefit almost wholly to herself. He remarked—"The powers of Europe, far removed from the west coast of America by the Atlantic Ocean which intervenes, and by a tedious and dangerous navigation around the southern cape of the continent of America, can never successfully compete with the United States in the rich and extensive commerce which is opened to us at so much less cost by the acquisition of California."

It has since been seen that not all the dangers and the inevitable delays which must be endured in rounding the southern cape of the American continent would deter British capitalists from seeking to participate in the advantages expected to

^a See vol. i. p. 930.

result from the recent discoveries in California. It may be added that not by British enterprise alone has this bold step been hazarded. From all parts of Europe, we might almost say from all parts of the world, adventurers have come forward, hardy enough to brave all the risks involved in so bold an experiment.

California having thus become the object of universal attention, a more exact account of its peculiarities will be desirable. Colonel Fremont, who was appointed by the government of the United States to explore the country, commanded in three several expeditions. From his third report, made after the close of the war with Mexico up to June 1848, we extract this most important passage. Of the Sierra Nevada he writes:—"The *Sierra Nevada*, (Snowy mountain) a name in itself implying a great elevation, as it is only applied, in Spanish geography, to the mountains whose summits penetrate the region of perpetual snow. It is a grand feature of California, and a dominating one, and must be well understood before the structure of the country and the character of its different divisions can be comprehended. It divides California into two parts, and exercises a decided influence on the climate, soil, and productions of each. Stretching along the coast, and at the general distance of 150 miles from it, this great mountain wall receives the warm winds, charged with vapour, which sweep across the Pacific ocean, precipitates their accumulated moisture in fertilizing rains and snows upon its western flank, and leaves cold and dry winds to pass on to the east. Hence the characteristic differences of the two regions—mildness, fertility, and a superb vegetable kingdom on one side, comparative barrenness and cold on the other. The two sides of the Sierra exhibit two distinct climates. The state of vegetation, in connection with some thermometrical observations made during the recent exploring expedition to California, will establish and illustrate this difference. In the beginning of December, 1845, we crossed this Sierra, at latitude $39^{\circ} 17' 12''$, at the present usual emigrant pass, at the head of the Salmon Trout River, 40 miles north of New Helvetia, and made observations at each base, and in the same latitude, to determine the respective temperatures; the two bases being, respectively, the *western* about 500, and the *eastern* about 4000 feet above the level of the sea; and the Pass, 7200 feet. The mean results of the observations were, on the *eastern* side, at sunrise, 9° ; at noon, 44° ; at sunset 30° ; the state of vegetation and the appearance of the country being at the same time (second week of December) that of confirmed winter; the rivers frozen over, snow on the ridges, annual plants dead, grass dry, and deciduous trees stripped of their foliage. At the *western* base, the mean temperature during a corresponding week was, at sunrise, 29° , and at sunset 52° ; the state of the atmosphere and of vegetation that of advancing spring; grass fresh and green, four to eight inches high, vernal plants in bloom, the air soft, and all the streams free from ice. Thus December, on one side of the mountain, was winter; on the other it was spring."

The Great Basin, as it has been named, is a most remarkable feature and pecu-

liar to these regions. After the second expedition of Colonel Fremont it was spoken of conjecturally as a matter of theory, but subsequently established as a matter of fact. He thus describes this extraordinary performance of nature:—"It is a singular feature: a basin of some 500 miles diameter, every way, between 4000 and 5000 feet above the level of the sea, shut in all around by mountains, with its own system of lakes and rivers, and having no connection whatever with the sea. Partly arid and sparsely inhabited, the general character of the Great Basin is that of desert, but with great exceptions, there being many parts of it very fit for the residence of a civilized people; and of these parts, the Mormons have lately established themselves in one of the largest and best. Mountain is the predominating structure of the interior of the Basin, with plains between—the mountains wooded and watered, the plains arid and sterile. The interior mountains conform to the law which governs the course of the Rocky mountains and of the Sierra Nevada, ranging nearly north and south, and present a very uniform character of abruptness, rising suddenly from a narrow base of ten to twenty miles, and attaining an elevation of 2000 to 5000 feet above the level of the country. They are grassy and wooded, showing snow on their summit peaks during the greater part of the year, and affording small streams of water from five to fifty feet wide, which lose themselves, some in lakes, some in the dry plains, and some in the belt of alluvial soil at the base; for these mountains have very uniformly this belt of alluvion, the wash and abrasion of their sides, rich in excellent grass, fertile, and light and loose enough to absorb small streams. Between these mountains are the arid plains which receive and deserve the name of desert. Such is the general structure of the interior of the Great Basin, more Asiatic than American in its character, and much resembling the elevated region between the Caspian sea and northern Persia. The rim of this Basin is massive ranges of mountains, of which the Sierra Nevada on the west, and the Wha-satch and Timpanogos chains on the east, are the most conspicuous. On the north, it is separated from the waters of the Columbia by a branch of the Rocky mountains, and from the gulf of California, on the south, by a bed of mountainous ranges, of which the existence has been only recently determined. Snow abounds on them all; on some, in their loftier parts, the whole year, with wood and grass; with copious streams of water, sometimes amounting to considerable rivers, flowing inwards, and forming lakes or sinking in the sands. Belts or benches of good alluvion are usually found at their base."

In the Great Basin we find there are vast bodies of water known as lakes, the Great Salt Lake and the Utah Lake. Our author thus describes them:—"The Great Salt Lake and the Utah Lake are in this Basin, towards its eastern rim, and constitute its most interesting feature—one, a saturated solution of common salt—the other, fresh—the Utah about 100 feet above the level of the Salt lake, which is itself 4200 above the level of the sea, and connected by a strait, or river, 35 miles long. These

lakes drain an area of 10,000 or 12,000 square miles, and have, on the east, along the base of the mountain, the usual bench of alluvion, which extends to a distance of 300 miles, with wood and water, and abundant grass. The Mormons have established themselves on the strait between these two lakes, and will find sufficient arable land for a large settlement—important from its position as intermediate between the Mississippi valley and the Pacific ocean, and on the line of communication to California and Oregon. The Utah is about 35 miles long, and is remarkable for the numerous and bold streams which it receives, coming down from the mountains on the south-east, all fresh water, although a large formation of rock salt, embedded in red clay, is found within the area on the south-east, which it drains. The lake and its affluents afford large trout and other fish in great numbers, which constitute the food of the Utah Indians during the fishing season. The Great Salt Lake has a very irregular outline, greatly extended at the time of melting snows. It is about 70 miles in length; both lakes ranging nearly north and south, in conformity to the range of the mountains, and is remarkable for its predominance of salt. The whole lake waters seem thoroughly saturated with it, and every evaporation of the water leaves salt behind. The rocky shores of the islands are whitened by the spray, which leaves salt on every thing it touches, and a covering like ice forms over the water, which the waves throw among the rocks. The shores of the lake in the dry season, when the waters recede, and especially on the south side, are whitened with incrustations of fine white salt; the shallow arms of the lake, at the same time, under a slight covering of briny water, present beds of salt for miles, resembling softened ice, into which the horses' feet sink to the fetlock. Plants and bushes, blown by the wind upon these fields, are entirely incrustated with crystallized salt, more than an inch in thickness. Upon this lake of salt the fresh water received, though great in quantity, has no perceptible effect. No fish, or animal life of any kind, is found in it; the *larvæ* on the shore being found to belong to winged insects. A geological examination of the bed and shores of this lake is of the highest interest. Five gallons of water taken from this lake in the month of September, and roughly evaporated over a fire, gave 14 pints of salt, a part of which being subjected to analysis, gave the following proportions:—Chloride of sodium (common salt,) 97·80 parts; chloride of calcium, 0·61; chloride of magnesium, 0·24; sulphate of soda, 0·23; sulphate of lime, 1·12;=100·00."

Other peculiarities are yet to be mentioned. To the south of the Utah there is a lake, as laid down by the traveller Humboldt in his map of Mexico. This lake is the reservoir of a river which has its source in the Wah-satch mountains, and its course extends to 200 miles. Both river and lake were formerly called Severo, which was corrupted into Sevier, but they have since been named Nicollet, in honour of J. N. Nicollet, who had prepared an important work on the physical geography of the basin of the Upper Mississippi, which he did not live to see published. The

Pyramid Lake on the western side of the Basin is immediately within the first range of the Sierra Nevada. It receives the water of the Salmon Trout river. "It is," says Colonel Fremont, "35 miles long, between 4000 and 5000 feet above the sea, surrounded by mountains, is remarkably deep and clear, and abounds with uncommonly large salmon trout. Southward, along the base of the Sierra Nevada, is a range of considerable lakes, formed by many large streams from the Sierra. Lake Walker, the largest among these, affords great numbers of trout, similar to those of the Pyramid Lake, and is a place of resort for Indians in the fishing season."

In addition to these there are many small lakes, some of which contain salt water. The melting of the snows at certain periods and other circumstances cause them greatly to vary in appearance. On their banks there are lands, the fertility of which, coupled with the means of irrigation so largely supplied, offer tempting spots to emigrants.

The Great Basin has also its rivers. "The most considerable of these," says the explorer, "is the one called on the map Humboldt river, as the mountains at its head are called Humboldt river mountains—so called as a small mark of respect to the 'Nestor of scientific travellers,' who has done so much to illustrate North American geography, without leaving his name upon any one of its remarkable features. It is a river long known to hunters, and sometimes sketched on maps under the name of Mary's or Ogden's, but now for the first time laid down with any precision. It is a very peculiar stream, and has many characteristics of an Asiatic river—the Jordan, for example, though twice as long—rising in mountains and losing itself in a lake of its own, after a long and solitary course. It rises in two streams in mountains west of the Great Salt Lake, which unite, after some 50 miles, and bears westwardly along the northern side of the basin towards the Great Sierra Nevada, which it is destined never to reach, much less to pass. The mountains in which it rises are round and handsome in their outline, capped with snow the greater part of the year, well clothed with grass and wood, and abundant in water. The stream is a narrow line, without affluents, losing by absorption and evaporation as it goes, and terminating in a marshy lake, with low shores, fringed with bulrushes, and whitened with saline incrustations. It has a moderate current, is from two to six feet deep in the dry season, and probably not fordable any where below the junction of the forks during the time of melting snows, when both lake and river are considerably enlarged. The country through which it passes (except its immediate valley) is a dry sandy plain, without grass, wood, or arable soil; from about 4700 feet (at the forks) to 4200 feet (at the lake) above the level of the sea, winding among broken ranges of mountains, and varying from a few miles to 20 in breadth. Its own immediate valley is a rich alluvion, beautifully covered with blue-grass, herd-grass, clover, and other nutritious grasses; and its course is marked through the plain by a line of

willow and cotton-trees, serving for fuel. The Indians in the fall set fire to the grass, and destroy all trees except in low grounds near the water. This river possesses qualities which, in the progress of events, may give it both value and fame. It lies on the line of travel to California and Oregon, and is the best route now known through the Great Basin, and the one travelled by emigrants. Its direction, nearly east and west, is the right course for that travel. It furnishes a level unobstructed way for nearly 300 miles, and a continuous supply of the indispensable articles of water, wood, and grass. Its head is towards the Great Salt Lake, and consequently towards the Mormon settlement, which must become a point in the line of emigration to California and the Lower Columbia. Its termination is within 50 miles of the base of the Sierra Nevada, and opposite the Salmon Trout river pass—a pass only 7200 feet above the level of the sea, and less than half that above the level of the Basin, and leading into the valley of the Sacramento, some 40 miles north of Nueva Helvetia. These properties give to this river a prospective value in future communications with the Pacific Ocean."

In the Great Basin there are many other rivers. The principal rivers mark its circumference. The Colonel thus enumerates some of them:—"1. Bear River, on the east, rising in the massive range of the Timpanogos mountains and falling into the Great Salt Lake, after a doubling course through a fertile and picturesque valley, 200 miles long. 2. The Utah river and Timpanozu or Timpanogos, discharging themselves into the Utah Lake on the east, after gathering their copious streams in the adjoining parts of the Wah-satch and Timpanogos mountains. 3. Nicollet river, rising south in the long range of the Wah-satch mountains, and falling into a lake of its own name, after making an arable and grassy valley, 200 miles in length, through mountainous country. 4. Salmon Trout River, on the west, running down from the Sierra Nevada and falling into Pyramid lake, after a course of about 100 miles. From its source, about one-third of its valley is through a pine-timbered country, and for the remainder of the way through very rocky, naked ridges. It is remarkable for the abundance and excellence of its salmon trout, and presents some ground for cultivation. 5. Carson and Walker rivers, both handsome clear-water streams, nearly 100 miles long, coming, like the preceding, down the eastern flank of the Sierra Nevada, and forming lakes of their own name at its base. They contain salmon trout and other fish, and form some large bottoms of good land. 6. Owens river, issuing from the Sierra Nevada on the south, is a large bold stream about 120 miles long, gathering its waters in the Sierra Nevada, flowing to the southward, and forming a lake about 15 miles long at the base of the mountain. At a medium stage it is generally 4 or 5 feet deep, in some places 15; wooded with willow and cotton-wood, and makes continuous bottoms of fertile land, at intervals rendered marshy by springs and small affluents from the mountain. The water of the lake in which it terminates

has an unpleasant smell and bad taste, but around its shores are found small streams of pure water with good grass. On the map this has been called Owens River."

Many others issue from the mountains which mark the circumference of the Great Basin. They all lose themselves in beds of sand, in lakes, or in beds of alluvion.

The interior of the Great Basin appears "to be a succession of sharp mountain ranges and naked plains, such as have been described. These ranges are isolated, presenting summit lines broken into many peaks, of which the highest are between 10,000 and 11,000 feet above the sea. They are thinly wooded with some varieties of pine (*pinus monophyllus* characteristic), cedar, aspen, and a few other trees; and afford an excellent quality of bunch grass, equal to any found in the Rocky mountains. Black-tailed deer and mountain sheep are frequent in these mountains; which, in consideration of their grass, water, and wood, and the alluvion at their base, may be called fertile, in the radical sense of the word, as signifying a capacity to produce, or bear, and in contradistinction to sterility. In this sense these interior mountains may be called fertile. Sterility, on the contrary, is the absolute characteristic of the valleys between the mountains—no wood, no water, no grass; the gloomy artemisia the prevailing shrub—no animals, except the hares, which shelter in these shrubs, and fleet and timid antelope, always on the watch for danger, and finding no place too dry and barren which gives it a wide horizon for its view and a clear field for its flight. No birds are seen in the plains, and few on the mountains. But few Indians are found, and those in the lowest state of human existence; living not even in communities, but in the elementary state of families, and sometimes a single individual to himself—except about the lakes stocked with fish, which become the property and resort of a small tribe. The abundance and excellence of the fish, in most of these lakes, is a characteristic; and the fishing season is to the Indians the happy season of the year."

"The climate of the Great Basin," says Colonel Fremont, "does not present the rigorous winter due to its elevation and mountainous structure. Observations made during the last expedition, show that around the southern shores of the Salt Lake, latitude 40° 30', to 41°, for two weeks of the month of October, 1835, from the 13th to the 27th, the mean temperature was 40° at sunrise, 70° at noon, and 54° at sunset; ranging at sunrise, from 28° to 57°; at noon from 62° to 76°; at four in the afternoon, from 58° to 69°; and at sunset, from 47° to 57°. Until the middle of the month the weather remained fair and very pleasant. On the 15th, it began to rain in occasional showers, which whitened with snow the tops of the mountains on the south-eastern side of the valley. Flowers were in bloom during all the month. About the 18th, on one of the large islands in the south of the lake, *helianthus*, several species of *aster*, *erodium*, *cicutarium*, and several other plants, were in fresh and full bloom; the grass of the second growth was coming up finely, and vegetation, generally, betokened the

lengthened summer of the climate. The 16th, 17th, and 18th, stormy with rain, heavy at night; peaks of the Bear River range and tops of the mountains covered with snow. On the 18th, cleared, with weather like that of late spring, and continued mild and clear until the end of the month, when the fine weather was again interrupted by a day or two of rain. No snow within 2000 feet above the level of the valley. Across the interior, between latitudes 41° and 38° , during the month of November (5th to 25th), the mean temperature was 29° at sunrise, and 40° at sunset; ranging at noon (by detached observations) between 41° and 60° . There was a snow-storm between the 4th and 7th, the snow falling principally at night, and sun occasionally breaking out in the day. The lower hills and valleys were covered a few inches deep with snow, which the sun carried off in a few hours after the storm was over. The weather then continued uninterruptedly open until the close of the year, without rain or snow; and during the remainder of November, generally clear and beautiful; nights and mornings calm, a light breeze during the day, and strong winds of very rare occurrence. Snow remained only on the peaks of the mountains. On the western side of the basin, along the base of the *Sierra Nevada*, during two weeks, from the 25th *November* to the 11th *December*, the mean temperature at sunrise was 11° , and at sunset 34° ; ranging at sunrise from zero to 21° , at sunset from 23° to 44° . For ten consecutive days of the same period, the mean temperature at noon was 45° , ranging from 33° to 56° . The weather remained open, usually very clear, and the rivers were frozen. The winter of 1843-44, within the basin, was remarkable for the same open, pleasant weather, rarely interrupted by rain or snow. In fact, there is nothing in the climate of this great interior region, elevated as it is, and surrounded and traversed by snowy mountains, to prevent civilized man from making it his home, and finding in its arable parts the means of a comfortable subsistence; and this the Mormons will probably soon prove in the parts about the Great Salt Lake. The progress of their settlement is already great. On the 1st of April, 1848, they had 3000 acres in wheat, seven saw and grist mills, 700 houses in a fortified inclosure of 60 acres, stock, and other accompaniments of a flourishing settlement."

CHAPTER XIV.

SECOND GREAT DIVISION OF CALIFORNIA.

WHAT is called the "maritime region," to the west of the Snowy Mountain, presents the second division of California. Its position is peculiar, seeing it is so cut off by the Sierra from the Great Basin as to be regarded as a country by itself; its structure, configuration, soil, climate, and productions, all differing from the neighbouring territory.

The western slope of the Sierra Nevada is capable of being rendered of great value to this part of the newly acquired territory. It is of great extent, well provided with timber, and with much grassy land plentifully irrigated by noble streams. From the name which it bears it might be inferred that the cold of this region would be severe; but such is not the case. It stretches along the valley; at its base the extent is not less than 500 miles, and its breadth varies from 40 to 70 miles from the top of the mountain to the termination of the hills at its foot, which bound the valleys. Almost the whole extent of the ground can be rendered available to meet the wants of civilized man. It offers good pasturage, much arable soil, and valuable quarries. The last are favourably situated, as they are not difficult of access, and the descent is less formidable than might be expected. It is not easy to over-rate the importance of the timber, which is most abundant. It consists partly of oaks, which ascend about half-way up the mountain; to these pines succeed, and cypress, the pines being more numerous, which has caused the *Pine Region* to become the designation of this spot, as that below is named the *Oak Region*, though it must not be supposed that oaks only are found there, as many other trees are mingled with them. The description proceeds:—

"The oaks are several varieties of white and black oak, and evergreens, some of them resembling live oak. Of the white oak there are some new species, attaining a handsome elevation, upon a stem six feet in diameter. Acorns of uncommon size, and not bad taste, used regularly for food by the Indians, abound on these trees, and will be of great value for stock. The cypress, pine, and cedar, are between 100 and

250 feet high, and 5 to 12 feet in diameter, with clean solid stems. Grass abounds on almost all parts of the slope, except towards the highest summits, and is fresh and green all the year round, being neither killed by cold in the winter, nor dried by want of rain in the summer. The foot hills of the slope are sufficiently fertile and gentle to admit of good settlements; while valleys, coves, beaches, and meadows of arable land are found throughout. Many of the numerous streams, some of them amounting to considerable rivers, which flow down the mountain side, make handsome, fertile valleys. All these streams furnish good water power. The climate in the lower part of the slope is that of constant spring, while above, the cold is not in proportion to the elevation. Such is the general view of the western slope of the great Sierra."

High above the wooded parts frowning masses of granite meet the eye. These are ordinarily covered with snow, which in some places never disappears. In the minute geological description furnished by Mr. Montgomery Martin, we are told, "The Sierra Nevada mountains are granitic, with trap and quartz. In some parts the structure is of white granite; in others, of limestone, or porous trap, or basalt. The character of the whole country is evidently volcanic. Between the parallels of 39° and 41° , there are many boiling springs of sulphur, salt, magnesia, and warm mud lakes. The mountain torrents carry down large quantities of granitic formations, which are rapidly disintegrating, and in which great mineral wealth will probably be discovered. The coarse pebbles and large stones found on the west bank of the Sacramento are composed of milky quartz, jasper, basalt, pudding stone, and slate. Three hills in the middle of the Sacramento valley, called 'Butes,' are of trachytic porphyry, and are supposed to have been active volcanoes. The highest is 1794 feet above the river."

For its extent, "north and south," says Captain Fremont, "this region embraces about ten degrees of latitude—from 32° , where it touches the peninsula of California, to 42° , where it bounds on Oregon. East and west, from the Sierra Nevada to the sea, it will average, in the middle parts, 150 miles; in the northern parts 200—giving an area of above one hundred thousand square miles. Looking westward from the summit of the Sierra, the main feature presented is the long, low, broad valley of the Joaquin and Sacramento rivers—the two valleys forming one—500 miles long and 50 broad, lying along the base of the Sierra, and bounded to the west by the low coast range of mountains, which separates it from the sea. Long dark lines of timber indicate the streams, and bright spots mark the intervening plains. Lateral ranges, parallel to the Sierra Nevada and the coast, make the structure of the country and break it into a surface of valleys and mountains—the valleys a few hundred, and the mountains two to four thousand feet above the sea. These form greater masses, and become more elevated in the north, where some

peaks, as the Shastl, enter the regions of perpetual snow.—Stretched along the mild coast of the Pacific, with a general elevation in its plains and valleys of only a few hundred feet above the level of the sea—and backed by the long and lofty wall of the Sierra—mildness and geniality may be assumed as the characteristic of its climate. The inhabitant of corresponding latitudes on the Atlantic side of this continent can with difficulty conceive of the soft air and southern productions under the same latitudes in the maritime region of Upper California. The singular beauty and purity of the sky in the south of this region is characterised by Humboldt as a rare phenomenon, and all travellers realise the truth of his description.

“The present condition of the country affords but slight data for forming correct opinions of the agricultural capacity and fertility of the soil. Vancouver found, at the mission of San Buenaventura, in 1792, latitude $34^{\circ} 16'$, apples, pears, plums, figs, oranges, grapes, peaches, and pomegranates, growing together with the plantain, banana, cocoa nut, sugar-cane, and indigo, all yielding fruit in abundance and of excellent quality. Humboldt mentions the olive oil of California as equal to that of Andalusia, and the wine like that of the Canary Islands. At present, but little remains of the high and various cultivation which had been attained at the missions. Under the mild and paternal administration of the ‘*Fathers*,’ the docile character of the Indians was made available for labour, and thousands were employed in the fields, the orchards, and the vineyards. At present, but little of this former cultivation is seen. The fertile valleys are overgrown with wild mustard; vineyards and olive orchards, decayed and neglected, are among the remaining vestiges; only in some places do we see the evidences of what the country is capable. At San Buenaventura we found the olive trees, in January, bending under the weight of neglected fruit; and the mission of San Louis Obispo (latitude 35°) is still distinguished for the excellence of its olives, considered finer and larger than those of the Mediterranean. The productions of the south differ from those of the north and of the middle. Grapes, olives, Indian corn, have been its staples, with many assimilated fruits and grains. Tobacco has been recently introduced, and the uniform summer heat which follows the wet season, and is uninterrupted by rain, would make the southern country well adapted to cotton. Wheat is the first product of the north, where it always constituted the principal cultivation of the missions. This promises to be the grain-growing region of California.”

The mineral treasures of California have attracted such general notice, that comparatively little has been said or written about any of its productions, save gold and quicksilver. It is, however, believed, that there are not many places in the known world in which fruits and grains are found in like variety and in like perfection. A most extensive field is here open to agriculture, as we find within its vast space the western slope of the Sierra Nevada, and that wide-spreading expanse known as the

valley of the Sacramento and San Joaquin. These valleys, as they are called, form, in fact, one valley, which is nearly 500 miles long, but the names of the rivers Sacramento and San Joaquin, which traverse it, have been given for distinction's sake to portions of it. The valley passes along the western base of the Sierra Nevada, between that and the coast range of mountains, and is connected with the bay of San Francisco by a triangular piece of land 25 miles in length. Captain Fremont thus describes it from notes made in his journal:—

“The two rivers, San Joaquin and Sacramento, rise at opposite ends of this long valley, receive numerous streams, many of them bold rivers, from the Sierra Nevada, become themselves navigable rivers, flow toward each other, meet half-way, and enter the bay of San Francisco together, in the region of tide water, making a continuous water line from one end to the other. The valley of the San Joaquin is about 300 miles long and 60 broad, between the slopes of the coast mountain and the Sierra Nevada, with a general elevation of only a few hundred feet above the level of the sea. It presents a variety of soil, from dry and unproductive to well-watered and luxuriantly fertile. The eastern (which is the fertile) side of the valley is intersected with numerous streams, forming large and very beautiful bottoms of fertile land, wooded principally with white oaks (*quercus longiglanda*, Torr. and Frem.) in open groves of handsome trees, often 5 or 6 feet in diameter, and 60 to 80 feet high. Only the larger streams, which are 50 to 150 yards wide, and drain the upper parts of the mountains, pass entirely across the valley, forming the *Tulare* lakes and the San Joaquin river, which, in the rainy season, make a continuous stream from the head of the valley to the bay. The *foot hills* of the Sierra Nevada, which limit the valley, make a woodland country, diversified with undulating grounds and pretty valleys, and watered with numerous small streams, which reach only a few miles beyond the hills, the springs which supply them not being copious enough to carry them across the plains. These afford many advantageous spots for farms, making sometimes large bottoms of rich moist land. The rolling surface of the hills presents sunny exposures, sheltered from the winds, and having a highly favourable climate and suitable soil, are considered to be well adapted to the cultivation of the grape, and will probably become the principal vine-growing region of California. The uplands bordering the valleys of the large streams are usually wooded with evergreen oaks, and the intervening plains are timbered with groves or belts of evergreen and white oaks among prairie and open land. The surface of the valley consists of level plains along the *Tulare* lakes and the San Joaquin river, changing into undulating and rolling ground nearer the foot hills of the mountains.”

He adds, from observations made during several journeys, the following facts, in order to give “some definite ideas of the climate and character” of the country:—

“We left the upper settlements of New Helvetia on the 14th December, and,

passing through the groves of oak which border the Rio de los Americanos, directed our course in a south-easterly direction across a plain toward the Rio de los Cos-um-nes, a handsome, well-wooded stream, about 30 yards wide. The Cos-um-ne Indians, who give name to this river, have been driven away from it within a few years, and dispersed among other tribes; and several farms, of some leagues in extent, have already been established on the lower part of the stream. We encamped at one of these, about eight miles above the junction of the Cos-um-ne river with the Mo-kel-um-ne, which a few miles below enters a deep slough in the tide water of the San Joaquin delta. At this place the temperature at sunset was 55°, and at sunrise 27°. Our road on the 15th was over the plain between the Cos-um-ne and Mo-kel-um-ne rivers, inclining toward the mountains. We crossed several wooded sloughs, with ponds of deep water, which, nearer the foot hills, are running streams, with large bottoms of fertile land; the greater part of our way being through open woods of evergreen and other oaks. The rainy season, which commonly begins with November, had not yet commenced, and the Mo-kel-um-ne river was at the lowest stage usual to the dry season, and easily forded. This stream is about 60 yards wide, and the immediate valley some 30 or 40 feet below the upland plain. It has broad alluvial bottoms of very fertile soil, sometimes 500 yards wide, bounded by a low upland, wooded with evergreen oaks. The weather in the evening was calm, the sky mottled with clouds, and the temperature at sunset 52°.

“Leaving the Mo-kel-um-ne (December 16), we travelled about 20 miles through open woods of white oak, crossing in the way several stream beds, among them the Calaveras creek. These have abundant water, with good land above; and the Calaveras makes some remarkably handsome bottoms. Issuing from the woods, we rode about 16 miles over an open prairie, partly covered with bunch-grass, the timber reappearing on the rolling hills of the river Stanislaus in the usual belt of evergreen oaks. The river valley was about 40 feet below the upland, and the stream 70 yards broad, making the usual fertile bottoms, which here were covered with green grass among large oaks. We encamped in one of these bottoms, in a grove of the large white oaks previously mentioned, as *quercus longiglanda* (Torr. and Frem.) This oak is a new species, belonging to the division of white oaks, distinguished by the length of its acorn, which is commonly an inch and a half, and sometimes two inches. This long acorn characterises the tree, which has accordingly been specified by Dr. Torrey as *quercus longiglanda*—(long-acorn oak.) The tree attains frequently a diameter of 6 feet, and a height of 80 feet, with a wide-spreading head. The many varieties of deciduous and evergreen oaks which predominate throughout the valleys and lower hills of the mountains, afford large quantities of acorns, which constitute the principal food of the Indians of that region. Their great abundance in the midst of fine pasture lands must make them an important element

in the agricultural economy of the country. The day had been very warm, and at sunset the temperature was 55° , and the weather clear and calm.

"At sunrise next morning, the thermometer was at 22° , with a light wind from the Sierra N. 75° E., and a clear, pure sky, in which the blue line of the mountain showed distinctly. The way, for about three miles, was through open woods of evergreen and other oaks, with some shrubbery intermingled. Among this was a *lupinus* of extraordinary size, not yet in bloom. Emerging from the woods, we travelled in a south-easterly direction, over a prairie of rolling land, the ground becoming somewhat more broken as we approached the To-wal-um-ne river, one of the finest tributaries of the San Joaquin. The hills were generally covered with a species of geranium (*erodium cicutarium*), a valuable plant for stock, considered very nutritious. With this was frequently interspersed good and green bunch-grass, and a plant commonly called *bur clover*. This plant, which in some places is very abundant, bears a spirally twisted pod, filled with seeds, which remains on the ground during the dry season well preserved, and affords good food for cattle until the spring rains bring out new grass. We started a band of wild horses on approaching the river, and the Indians ran off from a village on the bank, the men lurking round to observe us. About their huts were the usual *acorn cribs*, containing each some 20 or 30 bushels. We found here excellent grass, and broad bottoms of alluvial land, open-wooded, with large white oaks of the new species. The thermometer, at sunset, was $54^{\circ} 5'$, with a calm, clear atmosphere. Multitudes of geese and other wild fowl made the night noisy.

"In the morning the sky was clear, with an air from S. 55° E., and a hoar frost covering the ground like a light fall of snow. At sunrise the thermometer was $24^{\circ} 5'$. Our course now inclined more towards the foot of the mountain, and led over a broken country. In about 17 miles we reached the river Aux-um-ne, another large affluent to the San Joaquin, and continued about 6 miles up the stream, intending to reach gradually the heart of the mountains at the head of the *Lake Fork* of the Tularè. We encamped on the southern side of the river, where broken hills made a steep bluff, with a narrow bottom. On the northern side was a low undulating wood and prairie land, over which a band of about 300 elk was slowly coming to water where we halted, feeding as they approached.

"*December 19th.*—The weather continued clear and pleasant. We continued our journey in a south-easterly direction, over a broken and hilly country, without timber, and showing only scattered clumps of trees, from which we occasionally started deer. In a few hours' ride we reached a beautiful country of undulating upland, openly timbered with oaks, principally evergreen, and watered with small streams. We came here among some villages of Indians, of the horse-thief tribes, who received us in an unfriendly manner; and, after a busy night among them, we

retreated the next morning to the more open country of the lower hills. Our party was then a small one of 16 men, encumbered with cattle, which we were driving to the relief of the main body of the expedition, which had been sent southward from Walker's Lake, in the basin, along the eastern base of the Sierra Nevada, and to which a valley in the mountain, on the Tulàrè Lake Fork, had been appointed as a place of meeting.

"In the evening we encamped at an elevation of 1,000 feet above the sea, latitude $37^{\circ} 07' 47''$, still among the hills, on a spring hollow, leading to the Upper Joaquin river. The day had been mild, with a faint sun, and cloudy weather; and, at sunset, there were some light clouds in the sky, with a north-easterly wind, and a sunset temperature of 45° ; probably rendered lower than usual by the air from the mountains, as the foot-hills have generally a warmer temperature than the open valley. Elk were numerous during the day, making, on one occasion, a broken band, several miles in length.

"On the 21st, the thermometer at sunrise was $32^{\circ} 6'$; the sky slightly clouded, and, in the course of the morning, the clouds gathered heavy in the south-west. Our route lay in a south-easterly direction, toward the Upper Joaquin, crossing among rolling hills, a large stream and several sandy beds of affluents to the main river. On the trees along these streams, as well as on the hills, I noticed *mosses*. About two in the afternoon we reached the Upper San Joaquin. The stream was here about 70 yards wide, and much too deep to be forded. A little way below, we succeeded in crossing at a rapid made by a bed of rock, below which, for several miles, the river appeared deep and not fordable. We followed down the stream for six or eight miles, and encamped on its banks, on the verge of the valley plain. At evening rain began to fall, and with this spring properly commenced. There had been a little rain in November, but not sufficient to revive vegetation.

"December 22.—The temperature at sunrise was 39° . There had been heavy rain during the night, with high wind, and this morning there was a thick fog, which began to go off at 8 o'clock, when the sun broke through. We crossed an open plain, still in a south-easterly direction, reaching, in about twenty miles, the *Tulares Lake* river. This is one of the largest and handsomest streams in the valley, being about 100 yards broad, and having, perhaps, a larger body of fertile land than any other. The broad alluvial bottoms are well wooded with several species of oaks. This is the principal affluent to the Tulàrè lake (the bullrush lake), a strip of water, about 70 miles long, surrounded by lowlands, rankly overgrown with bullrushes, and receiving all the rivers in the southern end of the valley. In times of high water, the lake discharges into the Joaquin, making a continuous water line through the whole extent of the valley.

"We ascended this river to its sources in the Sierra Nevada, about 50 miles from

the edge of the valley, which we reached again on the 7th of *January*, in the neighbourhood of the Tulàrè lake. We found the temperature much the same as in *December*. Fogs, which rose from the lake in the morning, were dense, cold, and penetrating, but after a few hours gave place to a fine day. The face of the country had been much improved by the rains which had fallen while we remained in the mountains. Several humble plants, among them the golden-coloured violet (*viola crysantha*) and *erodium cicutarium*, the first valley flowers of the spring, which courted a sunny exposure and warm sandy soil, were already in bloom on the south-western hill-slopes. In the foot hills of the mountains, the bloom of the flowers was earlier. We travelled among multitudinous herds of elk, antelope, and wild horses. Several of the latter, which we killed for food, were found to be very fat. By the middle of *January*, when we had reached the lower San Joaquin, the new green grass covered the ground among the open timber on the rich river bottoms, and the spring vegetation had taken a vigorous start.

"The mean temperature in the Joaquin valley during the journey, from the middle of December to the middle of January, was, at sunrise 29°, and at sunset 52°, with generally a faint breeze from the snowy mountains in the morning, and calm weather at the evening. This was a lower temperature than we had found in the oak region of the mountains bordering the valley, between 1000 and 5000 feet above the level of the sea, where, throughout California, I have remarked the spring to be more forward than in the open valleys below.

"During a journey through the valley, between the head of the Tulàrè lakes and the mouth of the San Joaquin, from the 19th January to the 12th February, the mean temperature was 38° at sunrise and 53° at sunset, with frequent rains. At the end of January the river bottoms in many places were thickly covered with luxuriant grass more than half a foot high. The California poppy (*Eschscholtzia Californica*), the characteristic plant of the California spring; *nemophila insignis*, one of the earliest flowers, growing in beautiful fields of a delicate blue, and *erodium cicutarium*, were beginning to show a scattered bloom. Wild horses were fat, and a grisly bear, killed on the 2nd of February, had four inches thickness of fat on his back and belly, and was estimated to weigh a thousand pounds. Salmon was first obtained on the 4th February, in the To-wal-um-ne river, which, according to the Indians, is the most southerly stream in the valley in which this fish is found. By the middle of March the whole valley of the San Joaquin was in the full glory of spring; the evergreen oaks were in flower, *geranium cicutarium* was generally in bloom, occupying the place of the grass, and making on all the uplands a close sward. The higher prairies between the rivers presented unbroken fields of yellow and orange-coloured flowers, varieties of *Layia* and *Eschscholtzia Californica*, and large bouquets of the blue flowering *nemophila* nearer the streams. These

made the prevailing bloom, and the sunny hill-slopes to the river bottoms showed a varied growth of luxuriant flowers. The white oaks were not yet in bloom.

"Observations made in the valley, from the bend of the Joaquin to the C6s-um-n6 river, give, for the mean temperature, from the 10th to the 22nd March, 38° at sunrise and 56° at sunset, the dew point being 35° 7' at sunrise, and 47° 6' at sunset, and the quantity of moisture contained in a cubic foot of air being 2.712 grains, and 4.072 grains, respectively.

"A sudden change in the temperature was remarked in passing from the *To-wal-um-ne* to the *Stanislaus* river, there being no change in the weather, and the wind continuing from the north-west, to which we were more directly exposed on reaching the *Stanislaus* river, where we opened on the bay. In travelling down to the *Stanislaus*, the mean temperature for five days (from the 11th to the 16th) was 40° 3 at sunrise, 73° at 4 p.m., and 63° at sunset; and detached observations gave 66° at 9 a.m., 77° at noon, and 87° at 2 p.m.

"The dew point was 38° 0', 55° 5', 54° 3' at sunrise, at 4 in the afternoon, and at sunset; and the moisture contained in a cubic foot of air 2.878 grains, 5.209 grains, and 4.927 grains, respectively.

"North of the *Stanislaus* for five days (from the 16th to the 21st) the mean was 36° 6' at sun-rise, 57° at 4 p.m., and 49° at sunset. The dew point was 34° 9' at sunrise, 37° 1' at 4 p.m., and 40° 9' at sunset, and the quantity of moisture in a cubic foot of air 2.671 grains, 2.983 grains, and 3.216 grains, at the corresponding times. At sunrise of the 16th, on the *To-wal-um-ne*, the thermometer was at 43°, and at sunrise of the next morning, on the *Stanislaus*, at 35°.

"The temperature was lowest on the night of the 17th. At sunrise of the morning following the thermometer was at 27°, and it was remarked that the frost affected several varieties of plants. On the 20th and 21st there were some showers of rain, the first since the end of February. These were preceded by south-westerly winds.

"During December and the first part of January, which was still at the season of low waters, we were easily able to ford all the Joaquin tributaries. These begin to rise with the rains, and are kept up by the melting snows in the summer. At the end of January, the Joaquin required boating throughout the valley, and the tributaries were forded with difficulty.

"In the latter part of March, of a dry season (1844), we were obliged to boat the *Stanislaus*, *To-wal-um-ne*, and *Aux-um-ne*, and the San Joaquin was nowhere fordable below the bend where it is joined by the slough of the Tular6 lake. On the 13th March, 1846, we were obliged to boat the San Joaquin, the river being nowhere fordable below the junction of the slough, and the Indians guided us to some difficult fords of the large tributaries, where we succeeded to cross with damage to

our equipage. In July of the same year, we boated the San Joaquin below the Aux-um-ne, it being nowhere fordable below the bend.

"In June, 1847, the Joaquin was nowhere fordable, being several hundred yards broad as high up as the *Aux-um-ne* river, even with its banks, and scattered in sloughs over all its lower bottoms. All the large tributaries, the *Aux-um-ne*, *To-wal-um-ne*, *Stanislaus*, and *Mo-kel-um-ne*, required to be boated, and were pouring down a deep volume of water from the mountains, one to two hundred yards wide. The high waters came from the melting snows, which during the past winter had accumulated to a great depth in the mountains, and, at the end of June, lay in the approaches to the Bear river pass, on a breadth of ten or fifteen miles, and this below the level of 7200 feet. In rainy seasons, when the rains begin with November, and the snows lie on the mountains till July, this river is navigable for eight months of the year—the length of time depending on the season."

CHAPTER XV.

It would be late in the day now, to raise a question as to the title of the United States to the prize they have won in the late war with Mexico, but in the last century the right of Spain to hold California was seriously questioned in Malacky Postlewayt's *Universal Dictionary of Trade and Commerce*, published in 1776: "The more southern part was known to the Spaniards soon after their discovery of Mexico: for Cortez discovered it in 1535; but they did not until very lately penetrate far into it, contenting themselves with the pearl fishery on the coast. But our Sir Francis Drake landed there in 1578, and took possession of California for his mistress, Queen Elizabeth, by the name of New Albion; the king of the country actually investing him with its sovereignty, and presenting him with his own crown of beautiful feathers; and the people, thinking the English to be more than men, began to sacrifice to them, but were restrained."

To this the following note is appended: "Does not this give the English a juster right to the possession of this colony than the Spaniards can pretend to by a slight discovery only, and late slight possession since; Sir Francis having taken fair possession, in the name of our immortal Elizabeth, and been solemnly invested with its sovereignty? Though the English have never yet attempted to settle any colonies here, yet, if the revival of our right should ever become necessary, we seem to have a much better plea than the Spaniards. And as this nation has many years taken every advantage of us, by insult and depredation, and has for above these twenty years, amused us with shameful and dilatory negotiations, it may not be useless, perhaps, to think of the revival of every kind of right to which we have any claim or pretensions; in order, at least, to make proper use thereof, to obtain that indisputable right and security of trade and navigation to and from our long-possessed colonies in America; though the wisdom of the nation should not judge it advisable to enlarge our possessions in the new world, without further provocation from the Spaniards."

Times are now changed, and our "long-possessed colonies in America" have helped themselves to New Albion, which, it was here suggested, old England might find it expedient to claim, in order to secure their trade and navigation with the parent state.

Of its productions we find in the same elaborate work a somewhat detailed enumeration, which it may be interesting to compare with what is now reported:—"In respect to the soil, the mountains are well wooded, and the plains well watered; they abound with fruit-trees, and are capable of bearing all sorts of European grain. Here are deer, of which two kinds are peculiar to the country; all sorts of fowl and birds, common in Europe or the Indies; a prodigious plenty of sea and river fish, particularly cray-fish, which are taken out, and kept in reservoirs: there is, besides, one of the greatest pearl-fisheries in the world, and it is thought to have mines. It has two considerable rivers, viz., Rio Colorado and Rio du Carmel, with several other small rivers, and a variety of fine ports, both on the east and west sides, with innumerable bays, creeks, and roads, which is the reason of its having been so much frequented by our privateers in the South Seas.

"Such of the natives who live on the east side, on the Purple shore, are great enemies to the Spaniards; but in other parts of the peninsula, they seem very hospitable to all strangers. It is observable of this country, that after the rainy season is over, a great quantity of dew falls in the mornings, in April, May, and June, which not only renders the land exceeding fruitful, but, settling upon rose leaves, candies and hardens like manna, and is sweet as sugar, though not so white and pleasant to the eye. In the heart of the country there are plains of salt quite firm and clear as crystal, which, considering the extraordinary quantity of fish of all sorts that are found there, might prove of unspeakable advantage to any civilized people who were possessed of the country.

"Here is also excellent pasturage in all seasons for great and small cattle. The banks of the rivers are covered with willows, reeds, and wild vines; and there is abundance of xicames here, better tasted than those of any part of New Mexico. On the mountains there grows mercales, a fruit peculiar to this country, which is gathered all the year round. Almost every season there is plenty of pistachoes, of curious kinds, and figs of different colours. The trees are beautiful, and particularly those called by the natives palo sancto. It yields a great quantity of fruit, and a most excellent perfume is extracted therefrom.

"California breeds fourteen sorts of grain, which the natives feed on. They likewise use the roots of trees and plants, particularly the Yyuca, wherewith they make a sort of bread. They have also excellent skirret, and a sort of scarlet, or French beans, of which they eat great quantities, together with pumpions and water-melons, of a prodigious size. In short, the soil is so rich, that many plants

bear fruit three times a year. Here are lions, wild cats, and various other wild beasts, like to those of New Spain. And, besides stags, hares, rabbits, &c., there is a species of animals not found in Europe, which may be called sheep, because they somewhat resemble them in shape."

It is remarkable that nothing is said by Postlewayt of the precious metals which now constitute its great attraction, though long before Postlewayt wrote his Dictionary the fact of their existence was known. Mr. Martin says—"Although the earth, where cultivated, yields in abundance thirty to forty per cent. of wheat and other food for man, the gold found on the surface soil furnishes a representative of value to such an incalculable extent as to appear more fabulous than real; and, excepting quicksilver, to render all other products of comparatively little value. Sir Francis Drake noticed the auriferous appearance of the soil, and at the beginning of the last century Captain Shelcock, an Englishman, conveyed some of the Californian gold, which he had found in the black sands of the river Sacramento, to China, but he did not prosecute his inquiries." The writer truly adds, "It seems extraordinary that no discoveries were made by the Jesuit missionaries."

Of the climate, little is said in the way of complaint, when the rainy season is not on. Major Emory and his men seemed to have passed very convivially over a considerable portion of the Californian territory. One fact which he states would lead us to suppose that the air was sufficiently keen to whet the appetite. "Seven of my men," the major writes, "eat, at one single meal, a full-grown sheep." Animals, natives of Europe, have been said to degenerate in the New World. Unless the full-grown sheep of Major Emory were much smaller than a full-grown English sheep, if seven men could devour one in a single meal, it would be no light affair to provide for an American army in California, should the course of events find employment for one there. The general description given of the country by this gallant officer is very favourable. He says, "Alta California, between the 31st and 34th parallels of latitude, presents to the eastern man, accustomed to navigable rivers and broad estuaries of the ocean, topographical features of a very unusual character. Two chains of mountains traverse the country in a direction nearly parallel to the sea-coast, slightly converging towards each other, and finally uniting near the parallel of 32°. Here they form the promontory of Lower California, extending its entire length, and terminating abruptly in the ocean at Cape San Lucas. The first chain (the nearest the coast) may be considered a steppe of the second or interior range of mountains. It impinges on the coast at three different points, Santa Barbara, San Juan de Capristano, and between San Luis Rey and San Diego—at the first two places with so much boldness as to make it necessary to conduct the road along the margin of the sea, between the lines of high and low-water mark, so that both Santa Barbara and San Juan present points worthy of considera-

tion to the military commandant charged with the defence of that country. Between the first and second ranges of mountains there is a valley, traversed by a good road, leading directly from the great desert to the Pueblo de los Angeles, and a defending force would meet its adversary to the greatest advantage at Cariso creek, the termination of the 'jornada,' across the desert. The description and locality of Cariso creek has also been given. The second or principal range of mountains lies at no great distance from the first, and the valley between offers some arable land. The distance between the first range and the sea-coast varies from one to twenty or thirty miles. The surface covered with vegetation, though small, is difficult to estimate; and perhaps it is unimportant that an estimate should be made, since the productiveness of these regions depends on other considerations than smoothness of surface and character of soil. The rains cannot be relied upon, and the tiller of the earth depends upon irrigation from the mountain streams for his crops. The extent of ground capable of tillage is thus reduced to very narrow limits, easy of computation. A knowledge of the water-courses, their fall, volume, and extent, and the quantity of lands on their margin, within the level of these waters, are the data upon which the computation must be based. Where irrigation can be had in this country, the produce of the soil is abundant beyond description. All the grains and fruits of the temperate zones, and many of those of the tropical, flourish luxuriantly. Descending from the heights of San Barnardo to the Pacific, one meets every degree of temperature. Near the coast, the winds prevailing from the south-west in winter, and the north-west in summer, produce a great uniformity of temperature, and the climate is perhaps unsurpassed in salubrity. With the exception of a very few cases of ague and fever of a mild type, sickness is unknown. The season of the year at which we visited the country was unfavourable to obtaining a knowledge of its botany. The vegetation, mostly deciduous, had gone to decay, and no flowers nor seeds were collected. The country generally is entirely destitute of trees. Along the principal range of mountains are a few live oaks, sycamore, and pine; now and then, but very rarely, the sycamore and cotton-wood occur in the champaign country, immediately on the margins of the streams. Wild oats everywhere cover the surface of the hills, and these, with the wild mustard and carrots, furnish good pasturage to the immense herds of cattle which form the staple of California. Of the many fruits capable of being produced with success, by culture and irrigation, the grape is perhaps that which is brought nearest to perfection. Men experienced in growing it, and Europeans, pronounce the soil and climate of this portion of California unequalled for the quality of the wine expressed from it."

Supposing no exaggeration on the part of the writer, we should conclude that his followers had in their progress acquired the Californian taste for meat. To him it appeared that the native Californians required no other sustenance. He says—

"The fresh meat of a bullock is all that is required by the Californian for breakfast, dinner, and supper. Bread, tea, and coffee are rarely, if ever, used, and even when within their reach, looked upon with indifference. We very soon fell into their habits, and it is probable the troops in California, at this time, would not consider it an excessive hardship to make a campaign with no other stores in the commissariat than a plentiful supply of fresh beef. The white teeth of the Californians, and the blood tingling in the cheeks of their olive-coloured faces, would seem to prove this beef to be a very healthy diet. The advantages in the movement of troops that are contented with this kind of subsistence is very great, enabling them to move without waggons, and with no other care for the morrow than herding the animals intended for food."

It is really curious to note the report raised of the riches of California in the time of its first discoverer, and mark how, at various periods, it was referred to and credited; while after that it seemed to be forgotten, and remained generally unknown. Robertson, in his *History of America*, after speaking of the war carried on by the Spaniards against the Indians, which terminated in 1771, says, "In the course of their service the Spaniards marched through countries into which they seem not to have penetrated before that time, and discovered mines of such value as was astonishing even to men acquainted with the riches contained in the mountains of the New World. At Cineguilla, in the province of Sonora, they entered a plain of fourteen leagues in extent, in which, at the depth of only sixteen inches, they found gold in grains of such a size, that some of them weighed nine marks, and in such quantities, that in a short time, with a few labourers, they collected a thousand marks of gold in grains, even without taking time to wash the earth that had been dug, which appeared to be so rich that persons of skill computed that it might yield what would be equal in value to a million of pesos. Before the end of the year 1771, about 2,000 persons were settled in Cineguilla, under the government of proper magistrates, and the inspection of several ecclesiastics. As several other mines not inferior in richness to that of Cineguilla have been discovered, both in Sonora and Cinaloa, it is probable that these neglected and thinly inhabited provinces may soon become as populous and valuable as any part of the Spanish empire in America."

CHAPTER XVI.

SAN FRANCISCO.

THE nearest town to the far-famed "Diggings" is San Francisco, which has become, in consequence of the fame of California, a place of no small importance. To reach this by the safest and most expeditious route is now the object which mainly occupies the minds of all who have had their attention especially called to the new possessions of the United States. To describe St. Francisco, "the commercial capital of California," is rather a hazardous task, as since the wealth in its vicinity invited the gold-seekers of all countries to journey in that direction, a few months has more than once seen its aspect altogether changed, so that it could hardly be recognised as the same place by those who visited it after a brief interval. Previous to the close of the contest between the United States and Mexico, it consisted of a few huts and of one good house, a post of the Hudson Bay Company. It is situate on the slope of a range of low, bleak, sandy hills on Yerba Buena Bay, one of the numerous bays comprehended in what is generally known abroad as the "Bay of San Francisco," and which is one of the most magnificent sheets of inland water in the world. This has been mentioned in another place, but it is asserted that to call this vast watery expanse "San Francisco Bay," is hardly correct, as what is so designated may with greater propriety be regarded as an inland sea of many miles in extent, land-locked, the entrance being narrow, of less than two miles in width, and comprehending the Bays of San Pablo, Sancelito, San Pedro, Sinsun, &c., besides a great many creeks. The sea is studded with sands; that called Angel Island, standing opposite to San Francisco, is a bold triangular mountain, skirted round its base with wood, and supporting herds of wild cattle of a very handsome breed, and chiefly white. Most of the islands are barren. The scenery of the coast is picturesque, and in many parts grand, but the absence of green for the greater portion of the year to the view of an European, gives the entire range a character of sameness that tires the eye. San Francisco since 1848 has increased rapidly through emigration from all parts of Europe and the Americas, as well as from

China, and all the islands in the Pacific. The buildings are almost all wooden, and are run up with amazing quickness. The population is of so shifting a character that it is impossible to compute it. It, however, has comprehended every imaginable variety, from the simple emigrant, who expected to realise a vast fortune in a few weeks by his shovel, to the veriest sharper that London or New York could furnish. There are constant arrivals from abroad, and constant departures for the interior to the gold regions.

To accommodate the rapidly increasing numbers who repaired to San Francisco in the summer of 1849, a multitude of new erections sprang up, many of them not of the most substantial character. These, however little they would be valued by an English builder, were certainly an improvement on the flimsy tents under which hundreds of the emigrants had previously reposed, or sought to repose after their painful toils.

Whatever advantages San Francisco may possess, a glance at a map of the western hemisphere will shew that its situation is one of the most inaccessible to Europeans, and even to North Americans, that can be imagined. The mariner, when comparatively near to it, is compelled to make a tedious voyage from the part he desires to reach, and weeks and months are consumed in accomplishing his object, by doubling Cape Horn.

The form of the American continent has, in the course of the last century, suggested to many enterprising scientific men the vast importance of effecting a communication between the Atlantic and Pacific Oceans, by means of a canal across the Isthmus of Panama. Many wild schemes have been imagined. The short space to be cut through, as seen in the map, would seem to be a work of such moderate difficulty, that it wakes surprise, contemplating the wonders successfully attempted during the age in which we live, that a cut of twenty miles—for the two seas are separated by no wider space—which would effect the object so long desired has not been accomplished. The cession of California to the United States awakened all the ideas formerly cherished, but which had been suffered to remain dormant. Its reputed wealth renders men more than ever anxious to avoid, if possible, the painful and dangerous journey, or the almost interminable voyage hitherto interposed between the most populous cities of the United States and their new acquisitions. Early in the year 1848, the formation of a railway was projected, to conquer, or at least to abate the difficulty. Great benefits were placed within the reach of America by the plan, as it promised to make her ports the dépôts of the greater part of the commerce between Europe and the East Indies. This offered tempting advantages, but it was considered by many that she would profit still more largely from a ship canal, which would afford increased facilities to all the trading world. Such an undertaking they urged might be wisely hazarded, in conjunction with a railroad.

As already stated, the Isthmus in one part is scarcely twenty miles wide, but then it was found that the desired communication was opposed by an enormous mountain ridge, rising to the height of a thousand feet; and although gunpowder and fulminating gold have been mentioned as furnishing the means by which this enormous obstacle might be conquered, no body of men could be found equal to an enterprise so costly and stupendous. Attention was rather directed to a part between Chagres on the Atlantic, and Panama on the Pacific Ocean, where the ground to be passed over was thirty-three miles in extent; but where no such difficulty as that just described was in the way. Many years ago, a licence or permission was granted, by the government of the United States, to a Mr. Charles Biddle, to make the long-desired communication, but no advantage was taken of it within the period allowed for the completion of the meditated work, and which terminated in 1838, when a new permission, of the same character, was given to Messrs. Salomon and Co., of Panama, a French house; in consequence of which a fresh survey was made by an engineer of the name of Morel. It, however, led to no result. A grant of the necessary lands was to have been made by the Grenadian government for sixty years, at the end of that period the canal was to cease to be private property; and previously the ships of the Republic were to be allowed a reduction of ten per cent. on the tolls usually charged, while a tax of one per cent. imposed on the profits of the company, was to be set apart to meet the dividends due on the foreign debt. The *route* which was recommended to Salomons and Co., as preferable, was one, which if adopted, would have united the rivers Chagres and Trinidad, by means of a canal, with the river Farfan, which flows into the Rio Grande, and the distance thus to be traversed, the windings of the rivers being taken into consideration, would have been 50 miles, and the highest point of land to be dealt with not exceeding 33 feet. The canal was to be a hundred and sixty feet wide and 22 feet deep, so that it could receive vessels of from 12 to 1,400 tons. Eight years was allowed for its completion, and the estimated expense of the works was £605,000. In favour of this speculation it was urged that free-stone, clay, lime, and wood, were easily to be procured, in great abundance. The proposed toll was to be two dollars per ton. The estimated cost was 3,475,000 dollars or £695,000. The estimate of tonnage likely to pass through yearly was 499,809 tons, and the proposed toll being two dollars per ton, the income would be 999,618 dollars, from which, deducting expenses of 235,000 dollars, a divisible balance would remain of 764,618 dollars, or £152,923.

It is, however, doubted by some scientific men, if this work could be properly executed at the cost originally calculated, and the inhospitable climate, there was reason to fear, would interpose a serious obstacle to its successful prosecution. It was then suggested that a passage from sea to sea should be sought by the Isthmus

of Tehuantepec. The direct width of this isthmus is nearly 150 miles, and a privilege having been granted in 1842 to Don Jose de Garay to construct a canal, he caused it to be surveyed by Signor Moro, an Italian engineer, who proposed to avail himself of the river Coatzacoalcos, the mouth of which had long been pointed out as the fittest place in the Gulf of Mexico for a depôt, owing to its offering abundance of durable ship timber, and to the convenience and security of the port. The river through its windings is navigable in some degree for 160 miles, and after this it was proposed to advance by a canal of 50 miles, surmounting in its progress to a table land at a place called Tarifa, 525 feet, and falling from Tarifa to the Pacific 660 feet. The summit level was to be supplied with water by a trench from two rivers which descend from the mountains to the Pacific. The canal was to be 20 feet deep and 122 feet wide, and would have required 150 locks. Adopting the scale of estimate of the Caledonian Canal the cost would have been £3,400,000.

One great advantage of this route it was pleaded, would be the excellence of the country through which it passes. The salubrity of the climate was said to be unequalled on the American continent, and the population among the most active and healthy of the Indian races. In addition to a fertile soil and forests of the finest timber, it was added that the mountains present another attraction—rich gold and silver mines.

The last and most interesting route suggested was that by the Lake of Nicaragua. A proposal for the construction of a Nicaraguan Canal was entertained by the King of Holland in 1830, but abandoned, owing probably to the political events of the time. In 1842, however, while a prisoner at Ham, the attention of his son, Prince Louis Napoleon was called to the subject by a communication from a French gentleman at Jamaica, and subsequently receiving a visit from a French officer, about to start for Central America, the Prince requested him to make observations on the practicability of the communication. The result was the preparation of a pamphlet by the Prince, which was printed in London, in 1847, for private circulation.

From this it appeared that in 1846 the Government of Nicaragua conferred full powers on the Prince for the prosecution of the undertaking, and that seeing it "must produce the most beneficial effects on the commerce of all nations," he had resolved to go out and put himself at its head.

The surveys available for the project were those of Mr. Baily, an English engineer, who had been employed by the Nicaragua Government, but had never been paid for his labour, and of a Mr. Lawrence, of Her Majesty's ship *Thunderer*, which were made respectively in 1837 and 1840; to which also are to be added the observations by the French naval captain employed by Prince Napoleon.

"Its obstacles were a series of four rapids, which are comprised within an extent of 10 miles; a drainage of certain parts caused by the influx of its waters into

another river, the Colorado; and a labyrinth of small islands amongst the shallows thus created. The longest of the rapids was not more than a mile, and they could all be overcome by locks; the drainage into the Colorado could be remedied by a dam across that river; and the shallows got rid of by the ordinary methods of deepening, as the bottom consists of mud or sand. On the whole the works and deepenings of this river would extend for 33 miles. Reaching thus the Lake of Nicaragua, the next point of the undertaking is at the river Tipitapa, which connects that lake with the Lake of Leon, since the Lake of Nicaragua, which is 90 miles long, with a mean breadth of 20 miles, has abundant depth, and although studded with fine islands is perfectly free from anything to embarrass navigation. The river Tipitapa is 20 miles in length, and is navigable for boats 12 miles. At one part there is a cascade of 13 feet, and it would require three locks, and also that it should be canalized throughout. Arrived at the Lake of Leon, which is 35 miles in length, we are only separated from the Pacific by 29 miles, and the highest land above the level of the lake is stated not to exceed 51 feet. Eleven miles from the lake is the River Tosta, with an average width of 65 feet and depth of 6 feet at low water, and it is by cutting a communication to this that the work will be completed, bringing us to the port of Rialejo."

The total length of this route it was shown would be 278 miles (of which only 82 would require works), and amongst its most important recommendations were its harbours on both sides, the great beauty and variety of its climate, the fertility of its soil, and the extent of its natural productions. During four months, while Mr. Baily was employed with a party of 40 men, not a single individual was prevented by sickness from performing his daily labour, although they were continually sleeping at night in the open air. Provisions of all kinds were abundant. Beef at the rate of 2s. for 25 lbs.; maize, 16s. for 260 lbs.; and rice in the same proportion. The wages of labour, including provisions, average about nine dollars per man per month.

The proposed depth of the canal was 23 feet, and the width 147 feet, so as to be calculated for merchantmen of 1,200 tons. The dimensions of the locks were to be one-fifth greater than those of the Caledonian Canal. The cost calculated on the high scale of the Caledonian Canal was estimated at £4,000,000, leaving £40,000 for casual expenses, and a reserved fund. The revenue was taken on 900,000 tons, and as it was calculated that an average of one month would be saved to European vessels, and of two months to United States vessels, which might be estimated as equal in the former case to 19s. 7d. per ton, and in the latter to 39s., the contemplated toll was 10s. per ton in the one instance, and 20s. in the other. This would give £600,000."

Competent judges declared this route presented fewer difficulties than any other.

It was remarked the river San Juan de Nicaragua runs into the lake, which presents the appearance of a huge natural dock, and which again communicates with the smaller body of water called Lake Leon, separated from the Pacific by a narrow isthmus only, through which a canal of 11 miles, to a river that runs into the sea, would form the termination of the undertaking.

No extraordinary obstacles lay in the way, and such was the opinion at that time of Prince Louis Napoleon, and his opinion he supported by quoting authorities which justified the sanguine expectations he entertained. The route preferred commences at the harbour of San Juan de Nicaragua, one of the best on the coast, and which forms the mouth of the river extending from the Atlantic to the lake of Nicaragua. The length of this river is stated by one authority to be 90 English miles, and by another 104. It is described as a magnificent stream, varying in breadth from 100 to 200 yards, with a depth of from one and a half to nine fathoms, studded with islands and fringed with wood of all sizes and descriptions, and navigable all the year by boats of 8 or 10 tons burthen. Great confidence was manifested by the projectors in the final success of their great undertaking. From plausible data on which their calculations rested, they showed that an income might be expected, which, after leaving two per cent. for maintenance, and one per cent. for sinking fund, would yield a return of 12 per cent. on the capital. The Government of Nicaragua it was also believed would cede to the company all the land on both sides of the canal throughout its entire course to the extent of two leagues, forming about 1,200,000 acres, the then value of which, assumed to be 1s. 6d. per acre, or £90,000, but which it was contended would be infinitely improved.

It was the intention of Louis Napoleon to proceed to America in order to carry out this plan. A new revolution called him to preside over the destinies of France, and this sufficiently accounts for his changing his purpose. The position in which he was unexpectedly placed, however, gave him the means of encouraging others to undertake what he had proposed to accomplish himself. He had no occasion to use them in this instance, for that which had been so often abandoned as hopeless, and denounced as impracticable, now appeared so feasible that capitalists and speculators were anxious to forward it by every means in their power. No sooner was a scheme formed and prospectuses issued, than the whole stock of the projected Panama Railway was taken up at New York by the citizens of that emporium. Of course, after this there could be little, if any, doubt in reference to the completion of the important design in question. The whole amount of stock, 1,000,000 dollars, was taken principally by resident capitalists. According to the charter the proprietors were not to be individually liable beyond the full payment of the amount subscribed. The Government of New Grenada, were to receive $2\frac{1}{2}$ per cent. on all dividends declared, and 600,000*l.* were deposited by the company as security for

their fulfilling the obligations entered into; that sum, with interest thereon, to be refunded on the road being completed. The *New York Journal* predicted that in a year or two, at furthest, from that date (1849,) the chief communication between the Atlantic and the Pacific for passengers and valuable freights will be by way of the Panama Railway. The discovery of bituminous coal on the isthmus, of very fair quality, was just at this period made known, a fact which promised unhopd-for facilities to those who might embark in this remarkable undertaking.

The representations made by the projectors and their friends really gave goodly promise of a most successful issue. So immense was the saving to be effected by a cut from the Atlantic to the Pacific Ocean, that it seemed likely to render every maritime people in the world, to some extent, tributaries or customers to the Panama Railway company. Whether the isthmus should eventually be crossed by a railroad or canal, was deemed comparatively of small importance; in either case it was likely to shorten the delays heretofore interposed to retard commercial intercourse, in an almost unimaginable degree.

Some public men of the United States have doubted whether it would ever be possible for the President of the United States at Washington to exercise any efficient control over the Californian region. They have, indeed, gone so far as to say that the authority of a government ought not to be acknowledged where it could be so feebly asserted. Without subscribing to this doctrine, General Taylor, in the early part of his presidential reign, set inquiries on foot to discover, if possible, a shorter and less perilous route than any yet known to be practicable. This caused a people to be visited of whom little had ever been heard in Europe, the Mandingos; not the African race, with whose name we are familiar, but Indians inhabiting a group of islands, 113 in number, which seem to belong to the isthmus. These people, like the Japanese, are said, during many ages, to have kept themselves resolutely apart from all foreigners. They are supposed to know little of letters, to be ignorant of their own origin, and to be firmly united in obedience under one chief, who is called "The Old Man." The personage so called seems to enjoy rule as absolute as that formerly possessed by the assassin chief, known as the "Old Man of the Mountains." He is supposed by his followers to be endowed by the Deity with the wisdom and knowledge necessary to govern them well, and to cure all their diseases. When the chief dies, the next to him in age succeeds to his dignity, and is believed at the same time to receive from above the powers requisite to fit him for his high office. That in this there should be a failure they hold to be impossible, as the Great Spirit, they are taught, will not omit to bestow on the *new Old Man* all the great qualities of his predecessor.

To the Old Man of the Mandingos an American officer, Colonel Hughes, was sent early in 1849. The islands are described by him, or the gentlemen who

accompanied him, to present a most captivating appearance. They rapturously describe certain geological changes by which the surface of the earth has been modified through the labours of those surprising objects of nature, the Zoophites. These coral islands, it is added, are as beautiful as nature can make them, and under the clear blue water a variety of forms of singular and fantastic shape are glowing with vivid tints of every shade. The cocoa-nut tree, a stately object, rises from thirty to fifty feet in height, crowned by a verdant capital of waving branches adorned with long spiral leaves. The whole scene seems to have realised the dream of fairy-land, which amused and delighted the adventurers in the days of their youth.

On arriving at the Mandingo islands, Colonel Hughes cast anchor near an island known as Campbell's island. No men were in sight, but a few women and children were perceived, who seemed half hiding themselves among the trees. Four of the American party landed. They were received by the women and children in "ominous silence." Some anxiety was felt for their safety, which was, however, soon dispelled by the approach of a chief, named Campbell, who knew a few English words, and availed himself of them to bid the strangers welcome. He took them to his house, where his daughter lay sick, all his household gods being arranged in due order at the head of her hammock. Colonel Hughes soon arrived, and made known without delay the object of his visit, to journey over-land to the Pacific. He was referred to the Old Man for an answer, and it was resolved that he should be sent for; and eventually a meeting with that chief was arranged.

A very graphic picture was published of the interview, in which the important question, whether a shorter way to California could be found, was discussed and settled. It is curious as exhibiting the tact of the interpreter, and the singular vocabulary he deemed it necessary to use.

On Sunday, April 22nd, this conference was held with the natives in the cabin of the steamer, which had been cleared for the occasion. The Old Man presented himself, with several of his attendants, and he is said to have presided with great dignity. He is further described to bear an amiable, intellectual, and agreeable countenance. The interpreter spoke as the representative of Colonel Hughes.

"I come from Washington, in America. My Old Man, (the President of the United States,) great chief of 20,000,000 of Americans, sends me to talk to the old man of Mandingo's great tribe. My Old Man loves the Old Man of Mandingo, and sends him his regards."

To this the reply was—

"Old man of Mandingo loves Old Man of America."

A shout or noise, described to resemble a groan, but represented by the letters Hu-o-o here burst from the Mandingo followers of the Old Man. The sound was

several times repeated, whether in admiration or of disapproval of what had been said, we are not told, and it does not appear.

Colonel Hughes proceeded without further preface or prologue to business, and what followed is thus set down:—

Colonel Hughes.—"Old Man of America has much land afar off on the Pacific, too much days to catch them by land (too much time consumed in reaching the new acquisition of the United States,) too much days to catch 'em by water round Cape Horn; wants Old Man to send some faithful Indians to escort him over-land to the Pacific, to let him see if the land is good for a road."

Old Man.—"Land not good; can't catch 'em there; better catch 'em by Cape Horn; no make a road in Mandingo country—God Almighty get vexed."

"Hu-o-o, hu-o-o, hu-o-o!" repeated in groans by the Indians.

Colonel Hughes.—"Will you allow us to go across?"

Old Man.—"No."

"Hu-o-o, hu-o-o, hu-o-o," responded again the Indians, and the council broke up.

Hu-o-o, as employed at the close of the business, was evidently a demonstration of approbation. The Mandingo Indians were satisfied with the enlightened policy and unbending firmness of their chief. It is more than probable he had heard of the progress which the Old Man of the United States had made in other directions, and prudently resolved not to throw temptation into the way of his visitors, by allowing them to find a convenient road to California through his territory. Happy might it have been for other tribes, had they acknowledged the sway of so respectable an Old Man.

Notwithstanding this repulse there may be grounds to fear that pretexts would not be wanting to "catch" some of the Mandingo islands, but fortunately Colonel Hughes obtained information which satisfied him that the harbours of the coast, by which it was supposed a route might be found, were unfit for the purpose, as they offered no good anchorage. Such being the case, the Mandingo Islands may probably remain unmolested for a time by the Caucasian race.

CHAPTER XVII.

HOWEVER lavish Nature may have been of her choicest treasures to California, or to any other land, it admits not of doubt that in the absence of law, where a multitude of human beings are assembled, whatever their pursuits, there must be great confusion, which will be likely to create deadly strife and general distress. Other ills may be endured, but the want of law, and consequently of order, is of such vast importance that it calls for instant redress.

In a matter so obviously pressing, it will at the first glance excite surprise that Congress should not have at once proceeded to give California a constitution; but it will vanish when the difficulties which surround the question are understood. These are mentioned in the first volume of this work, and the view taken of the subject by President Polk, is briefly brought before the reader. The slave-holding states and their opponents differ so widely on the policy fit to be adopted, that it is not easy to see how a compromise can soon be effected; and however strong the prejudice which may be felt by the friends of emancipation, in favour of those who object to the extension of slavery, it cannot be denied that there is some force in the argument which the slave-holders use when they urge that their domestic institutions had not exempted them from bearing a portion of the expense and sharing the dangers of the war which led to the important conquest from Mexico; and that therefore they ought not now to be pleaded in bar to their sharing the prize.

This is a business of momentous importance, not only to the subjects of the United States, but to all who may contemplate establishing themselves for a time within the limits of California. To comprehend the subject thoroughly, it is necessary to look at the shape in which it was brought before the great National Assembly of North America.

President Polk, at the opening of the Congress, in December 1848, went fully into the question. He unequivocally declared it to be the duty of the United States to give a constitution to California, and he even then lamented that it had not pre-

viously been done. "It is," said he, "our solemn duty to provide, with the least practicable delay, for New Mexico and California regularly organized territorial governments. The causes of the failure to do this at the last session of Congress are well known, and deeply to be regretted."

The cause of the failure in the performance of duty was the slave-trade question. On this he remarked: "With the opening prospects of increased prosperity and national greatness which the acquisition of these rich and extensive territorial possessions afford, how irrational it would be to forego or to reject these advantages by the agitation of a domestic question which is coeval with the existence of our government itself; and to endanger, by internal strifes, geographical divisions, and heated contests for political power, or for any other cause, the harmony of the glorious union of our confederated States; that union which binds us together as one people, and which for sixty years has been our shield and protection against every danger. In the eyes of the world and of posterity, how trivial and insignificant will be all our internal divisions and struggles compared with the preservation of this union of the States in all its vigour and with all its countless blessings! No patriot would foment and excite geographical and sectional divisions. No lover of his country would deliberately calculate the value of the Union. Future generations would look in amazement upon the folly of such a course. Other nations at the present day would look upon it with astonishment; and such of them as desire to maintain and perpetuate thrones and monarchies, or aristocratical principles, will view it with exultation and delight, because in it they will see the elements of faction, which they hope must ultimately overturn our system. Ours is the great example of a prosperous and free self-governed republic, commanding the admiration and the imitation of all the lovers of freedom throughout the world. How solemn, therefore, is the duty, how impressive the call upon us and upon all parts of our country to cultivate a patriotic spirit of harmony, of good fellowship, of compromise, and mutual concession, in the administration of the incomparable system of government formed by our fathers in the midst of almost insuperable difficulties, and transmitted to us, with the injunction that we should enjoy its blessings, and hand it down unimpaired to those who may come after us."

Further delay Mr. Polk clearly indicated would be an evil which ought to be spared California, and one that would prove injurious to the interests of the United States. He therefore invited an early settlement of it. Addressing the Congress, he said, "In view of the high and responsible duties which we owe to ourselves and mankind, I trust you may be able at your present session to approach the adjustment of the only domestic question which seriously threatens, or probably ever can threaten, to disturb the harmony and successful operation of our system. The immensely valuable possessions of New Mexico and California are already inhabited by a

considerable population. Attracted by their great fertility, their mineral wealth, their commercial advantages, and the salubrity of the climate, emigrants from the older states, in great numbers, are already preparing to seek new homes in these inviting regions. Shall the dissimilarity of the domestic institutions in the different States prevent us from providing for them suitable governments? These institutions existed at the adoption of the constitution, but the obstacles which they interposed were overcome by that spirit of compromise which is now invoked. In a conflict of opinions or of interests, real or imaginary, between different sections of our country, neither can justly demand all which it might desire to obtain. Each, in the true spirit of our institutions, should concede something to the other."

The argument in favour of the slave-holder's view of the subject he pressed upon them in strong language. He remarked—"Our gallant forces in the Mexican war, by whose patriotism and unparalleled deeds of arms we obtained these possessions as an indemnity for our just demands against Mexico, were composed of citizens who belonged to no one State or section of our Union. They were men from slaveholding and non-slaveholding States, from the north and the south, from the east and the west. They were all companions in arms and fellow-citizens of the same common country, engaged in the same common cause. When prosecuting that war they were brethren and friends, and shared alike with each other common toils, dangers, and sufferings. Now, when their work is ended, when peace is restored, and they return again to their homes, put off the habiliments of war, take their places in society, and resume their pursuits in civil life, surely a spirit of harmony and concession, and of equal regard for the rights of all and of all sections of the Union, ought to prevail in providing governments for the acquired territories, the fruits of their common service. The whole people of the United States, and of every State, contributed to defray the expenses of that war; and it would not be just for any one section to exclude another from all participation in the acquired territory. This would not be in consonance with the just system of government which the framers of the constitution adopted."

It cannot be denied that if slaveholders were called upon, in common with other citizens of the United States, to encounter all the perils of the war with Mexico, it is not quite fair, in a national point of view, to make their previously-established habits an objection to allowing them equal participation that which has been won by their arms, or, at least, with their co-operation. Mr. Polk, however, wished it to be supposed that it was merely a matter of opinion with which Congress had to deal, and that, in point of fact, it was not likely any practical evil would arise from the different views taken by various parties of the merits of the case. His argument ran thus—"The question is believed to be rather abstract than practical, whether slavery ever can or would exist in any portion of the acquired

territory, even if it were left to the option of the slaveholding States themselves. From the nature of the climate and productions, in much the larger portion, it is certain it could never exist; and, in the remainder, the probabilities are it would not. But however this may be, the question, involving as it does, a principle of equality of rights of the separate and several states, as equal co-partners in the confederacy, should not be disregarded. In organising governments over these territories, no duty imposed on Congress by the constitution requires that they should legislate on the subject of slavery, while their power to do so is not only seriously questioned, but denied by many of the soundest expounders of that instrument. Whether Congress shall legislate or not, the people of the acquired territories when assembled in convention to form State constitutions, will possess the sole and exclusive power to determine for themselves whether slavery shall or shall not exist within their limits. If Congress shall abstain from interfering with the question, the people of these territories will be left free to adjust it as they may think proper when they apply for admission as States into the Union. No enactment of Congress could restrain the people of any of the sovereign States of the Union, old or new, north or south, slaveholding or non-slaveholding, from determining the character of their own domestic institutions as they may deem wise and proper. Any and all the States possess this right, and Congress cannot deprive them of it. The people of Georgia might, if they chose, so alter their constitution as to abolish slavery within its limits; and the people of Vermont might so alter their constitution as to admit slavery within its limits. Both states would possess the right, though, as all know, it is not probable that either would exert it."

While he entertained a hope that no great mischief would occur from the question being left open, he was well disposed to congratulate the American people on the probability of its being very shortly set at rest. They were told—"It is fortunate for the peace and harmony of the Union that this question is in its nature temporary, and can only continue for the brief period which will intervene before California and New Mexico may be admitted as States into the Union. From the tide of population now flowing into them, it is highly probable that this will soon occur."

It is right to observe that the differences of opinion which have been mentioned were in many cases very sternly asserted. The fierce resolution with which the slaveholders defended their interests was condemned as a sordid eagerness for gain by the abolitionists (so their opponents were called), with a fiery zeal which the first denounced as fanaticism. To reconcile these adverse parties seemed almost impossible. On the practicability of effecting a compromise which had been suggested, the President thus delivered himself—"Considering the several States and the citizens of the several States as equals, and entitled to equal rights under the constitu-

tion, if this were an original question, it might well be insisted on that the principle of non-interference is the true doctrine, and that Congress could not, in the absence of any express grant of power, interfere with their relative rights. Upon a great emergency, however, and under menacing dangers to the Union, the Missouri compromise line in respect to slavery was adopted. The same line was extended further west in the acquisition of Texas. After an acquiescence of nearly 30 years in the principle of compromise recognised and established by these acts, and to avoid the danger to the Union which might follow if it were now disregarded, I have heretofore expressed the opinion that that line of compromise should be extended on the parallel of $36^{\circ} 30'$ from the western boundary of Texas, where it now terminates, to the Pacific Ocean. This is the middle ground of compromise upon which the different sections of the Union may meet, as they have heretofore met. If this be done, it is confidently believed a large majority of the people of every section of the country, however widely their abstract opinions on the subject of slavery may differ, would cheerfully and patriotically acquiesce in it, and peace and harmony would again fill our borders. The restriction north of the line was only yielded to in the case of Missouri and Texas upon a principle of compromise, made necessary for the sake of preserving the harmony, and possibly, the existence of the Union. It was upon these considerations that at the close of your last session I gave my sanction to the principle of the Missouri compromise line, by approving and signing the bill to establish 'the territorial Government of Oregon;' from a sincere desire to preserve the harmony of the Union, and in deference for the acts of my predecessors, I feel constrained to yield my acquiescence to the extent to which they had gone in compromising this delicate and dangerous question. But if Congress shall now reverse the decision by which the Missouri compromise was effected, and shall propose to extend the restriction over the whole territory, south as well as north of the parallel of $36^{\circ} 30'$, it will cease to be a compromise, and must be regarded as an original question. If Congress, instead of observing the course of non-interference, leave the adoption of their own domestic institutions to the people who may inhabit these territories; or if, instead of extending the Missouri compromise line to the Pacific, it shall prefer to submit the legal and constitutional questions which may arise to the decision of the judicial tribunals, as was proposed in a bill which passed the Senate at your last session, an adjustment may be effected in this mode. If the whole subject be referred to the judiciary, all parts of the Union should cheerfully acquiesce in the final decision of the tribunal created by the constitution for the settlement of all questions which may arise under the constitution, treaties, and laws of the United States."

Mr. Polk again marked his anxiety to see this question speedily set at rest, if not in the way he had hinted, in some way which the Congress itself might originate.

He thus earnestly pressed it. "Congress is earnestly invoked, for the sake of the Union, its harmony, and continued prosperity as a nation, to adjust at its present session this, the only dangerous question which lies in our path, if not in some one of the modes suggested, in some other which may be satisfactory."

The *ad interim* arrangements which he had thought it came within the range of his duty as President of the United States, to make, it is necessary to look at. These, as the great question was not finally disposed of, necessarily remained in force, however deficient, or in some cases inapplicable to the circumstances of the new settlers, they might be found. One of the first objects that naturally presented itself to Mr. Polk was the necessity of obtaining information of the forts or other defences necessary to be erected for the protection of the new possessions of the republic. He accordingly reported that, "In anticipation of the establishment of regular governments over the acquired territories, a joint commission of officers of the army and navy has been ordered to proceed to the coasts of California and Oregon, for the purpose of making *reconnaissances* and a report as to the proper sites for the erection of fortifications or other defensive works on land, and of suitable situations for naval stations. The information which may be expected from a scientific and skilful examination of the whole face of the coast will be eminently useful to Congress, when they come to consider the propriety of making appropriations for these great national objects. Proper defences on land will be necessary for the security and protection of our possessions; and the establishment of navy yards, and a dock for the repair and construction of vessels, will be important alike to our navy and commercial marine. Without such establishments, every vessel, whether of the navy or of the merchant service, requiring repair, must, at great expense, come round Cape Horn to one of our Atlantic yards for that purpose. With such establishments, vessels, it is believed, may be built or repaired as cheaply in California as upon the Atlantic coast. They would give employment to many of our enterprising ship-builders and mechanics, and greatly facilitate and enlarge our commerce in the Pacific."

It will be remarked that he especially laid it down as a principle that the portions of the territory containing the deposits of the precious metals should be reserved "for the use of the United States." The interpretation given to this may in no slight degree concern Europeans resorting to the new El Dorado. His words are these:—"As it is ascertained that mines of gold, silver, copper, and quicksilver exist in New Mexico and California, and that nearly all the lands where they are found belong to the United States, it is deemed important to the public interests that provision be made for a geological and mineralogical examination of these regions. Measures should be adopted to preserve the mineral lands, especially such as contain the precious metals, for the use of the United States; or, if brought into market, to separate them from the farming lands, and dispose of them in such manner as to

secure a large return of money to the treasury, and at the same time lead to the development of their wealth by individual proprietors and purchasers. To do this it will be necessary to provide for an immediate survey and location of the lots. If Congress should deem it proper to dispose of the mineral lands, they should be sold in small quantities, and at a fixed *minimum* price. I recommend that surveyor-generals' offices be authorized to be established in New Mexico and California, and provision made for surveying and bringing the public lands into market at the earliest practicable period. In disposing of these lands, I recommend that the right of pre-emption be secured, and liberal grants made to the early emigrants who have settled or may settle upon them. It will be important to extend our revenue laws over these territories, and especially over California, at an early period. There is already a considerable commerce with California; and until ports of entry shall be established and collectors appointed, no revenue can be received."

Such are the views which were entertained on this subject by the chief magistrate of the United States in 1848. The pre-emption he recommended to be given to "early emigrants," makes no distinction between native citizens of the United States and foreigners. That none was intended to be made was the general impression of the cosmopolites who put themselves in motion to seek San Francisco from all other countries.

CHAPTER XVIII.

THE VALLEY OF THE SACRAMENTO.

WHETHER for good or for evil it cannot be doubted that California is destined to be largely resorted to by people of all nations. Hence it becomes desirable to give as clear and as particular an account of the country and its various resources as possible. This is a matter that must interest not only those who go to "the Diggings," but the less sanguine speculators, who have only sought to carry on a profitable commerce in those articles which, on the most sober calculation, they feel certain the great body of adventurers, whatever their success, or however complete their failure, must require. Hence it becomes of importance to look with especial care at the approaches and the adjacent waters. On this subject, so deeply interesting to all, the information supplied is equally full and satisfactory. Captain Fremont in his progress from the Sierra Nevada, being of opinion that all general views should be proved to rest on positive *data*, gives us his notes taken from actual observation. He informs us that they were made in different ascents and descents in the winter of 1845 and the spring of 1846, and in degrees of latitude varying from 35° to 41°. Following his *Geographical Memoir* we read:—

"December 4, 1845.—Descent from the pass, at the head of Salmon Trout river, latitude 39° 17', elevation 7,200 feet. At three in the afternoon the temperature at 46°, at sunset 34°, at sunrise next morning 22°; the sky perfectly clear; no snow in the pass, but much on the mountain tops. Here the present emigrant road now crosses. A fork of Bear river (a considerable stream tributary to Feather river, which falls into the Sacramento) leads from the pass, and the road follows it; but finding this a rugged way, we turned to the south, and encamped in a mountain meadow of good green grass. A yellow moss very abundant on the north sides of the pines.

"December 6.—The route was over good travelling ground, through open pine forest on a broad, leading ridge, affording an excellent road. A species of cedar (*Thuja gigantea*) occurred, often of extraordinary height and size. *Pinus lamber-*

tiani was one of the most frequent trees, distinguished among cone-bearing tribes by the length of its cones, sometimes sixteen or eighteen inches long. The Indians eat the inner part of the burr, and large heaps of them were seen where they had been collected. Leaving the higher ridges, and gaining the smoother spurs, and descending about 4,000 feet, the face of the country changed rapidly. The country became low, rolling, and pretty; the pines began to disappear, and varieties of oak, and principally an evergreen resembling live oak, became the predominating forest growth. These oaks bear great quantities of large acorns, the principal food of all the wild Indians. At a village of a few huts which we came upon, there was a large supply of these acorns—eight or ten cribs of wicker work, containing about twenty bushels each. The best acorns are obtained from a large tree belonging to the division of white oaks, which is very abundant, and generally forms the groves on the bottom lands of the streams—standing apart with a clean undergrowth of grass, giving them the appearance of cultivated parks. It is a noble forest tree, already mentioned as a new species, sixty to eighty feet high, with a tufted summit of spreading branches, and frequently attains a diameter of six feet. The largest we measured reached eleven feet. The evergreen oaks generally have a low growth, with long branches and spreading tops. Some of them are suitable for ship timber, and have already been used for that purpose."

"At our evening encampment of the 8th, which was at an elevation of five hundred feet above the sea, latitude $38^{\circ} 53'$, and distant from the sea-coast about one hundred miles, the temperature at sunset was 48° , the sky clear and calm, weather delightful, and the vegetation that of early spring. We were still upon the foot hills of the mountain, where the soil is sheltered by woods, and where rain falls much more frequently than in the open Sacramento valley, near the edge of which we then were. I have been in copious, continuous rains of eighteen or twenty hours' duration in the oak region of the mountain, when not a drop fell in the valley below. Innumerable small streams have their rise and course through these foot hills, which never reach the river of the valley, but are absorbed in its light soil. The large streams coming from the upper parts of the mountain make valleys of their own, of fertile soil, covered with luxuriant grass and interspersed with groves. This is the general character of the foot hills throughout the entire length of the Sacramento and San Joaquin valleys—a broad belt of country, and probably destined to become a vine-growing, as well as a grain and pastoral country."

Thus much for the advance of the Colonel and his party to the Land of Promise, the valley of the Sacramento. To say nothing of the animals which may be found by the enterprising traveller on his route, food such as the Indians prove will sustain human life, is to be met with, and in large quantities. We now accompany our author into the valley itself:—

" December 9.—Entered the valley of the Sacramento. Fresh, green grass for eight or ten miles into the valley, cattle feeding upon it, or lying under the shade of trees—the shade being pleasant to our own feelings. Further in, towards the middle of the valley, where the spring rains had not yet commenced, the country looked parched and dry, the grass eaten down by the cattle, which were quite fat, and fine beef.

" *Ascent*, December and January, 1845-'46, latitude 37°. Entering the mountain by the *Rio Reyes* of Tularé lake (December 24), we found its general character very similar to what it was in the more northern part (latitude 39°), the timber perhaps less heavy and more open, and the mountain generally more rough, extremely rocky in the upper parts, but wooded up to the granite ridges which compose its rocky eminences. At the elevation of 3,500 feet the ridges were covered with oaks and pines intermixed, and the bottom lands with oaks, cotton-wood, and sycamores. Small varieties of evergreen oaks reached the observed height of 9,480 feet, at which elevation *pinus lambertiani*, and other varieties of pine, fir, and cypress, were large and lofty trees. During the latter part of December and first days of January the average temperature of the oak region, going to about 5,000 feet above the sea, was, at sunrise, 34° 6', and at sunset 50° 5'. In the piney region, between this height and 1,100 feet, the average at sunrise was 28° 7', and at sunset 30° 4'. The lowest observed temperature was at sunset of January 1, when the sky had entirely cleared after a severe snow storm. The thermometer then stood at 8° 5', the elevation above the sea being 9,400 feet. Descending to the oak region, spring weather, rain and sunshine, prevailed. At an elevation of 4,500 feet the temperature, at the night encampment of the 3rd day of January, was 38° at sunset, and the same at sunrise, the grass green, and growing freshly under the oaks. The snow line was then at about 6,000 feet above the level of the sea. Rain had begun to fall in the valley of the San Joaquin in this latitude (37°) on the 20th of December, and snow at the same time upon the summit of the mountain. The mean temperature of the mountain during this ascent and descent (December 24 to January 8) was 31° 6' at sunrise, 40° 4' at sunset.

" *Descent* by Mr. Kern's party, latitude 35° 30', December and January. Mr. Kern, with a detached party had crossed the Sierra about 100 miles further south, nearly opposite the head of the Tularé lakes, and remained encamped in a valley or cove, near the summit of the Sierra, at the head of Kern's river, from December 27th to January 17th; the cove well wooded with evergreen oaks, some varieties of pine, firs, and cedars, maintaining the usual majestic growth, which characterizes the cone-bearing trees of the Sierra. Until the 12th of January the weather almost that of summer, when the rains commenced, which was almost three weeks later than in latitude 37°. The 17th there was a fall of snow, washed off in the cove by a rain in

the afternoon, the high ridges remaining covered a foot deep. The mean temperature in the cove from December 27, to January 17, was at sunrise 26°, at noon 60°, at sunset 52°. After that, snow and rain, alternated with sunshine, snow remaining on the ridges, and winter set in fairly on all the upper half of the mountain.

" *Ascent* about latitude 41° (April and May), April 26, 1846—head of the lower Sacramento valley. Left the river Sacramento, going up one of the many pretty little streams that flow into the river around the head of the lower valley. On either side, low steep ridges were covered along their summits with pine, and oaks occupied the somewhat broad bottoms of the creek. Snowy peaks made the horizon on the right, and the temperature at noon was 71°, but the day was still and hot. The small streams are numerous here, and have much bottom land; grass and acorns abundant, and both of excellent quality. Encamped in the evening in latitude 40° 38' 58", elevation above the sea 1,080 feet, temperature at sunset 56°, weather pleasant. Grisly bears numerous, four being killed by the hunters after we had encamped.

" April 27.—Found a good way along a flat ridge, a pretty, open mountain stream on the right, the country beginning to assume a mountainous character, wooded with mingled oak and long-leaved pine, and having a surface of scattered rocks, with grass and flowers. At noon, crossing a high ridge, the thermometer showed 61°. At night, at an elevation of 2,460 feet, we encamped on a creek that went roaring into the valley; temperature at sunset 52°.

" 28th, continued up the stream on which we had encamped, the country rising rapidly, clothed with heavy timber. On crossing one of the high ridges snow and *pinus lambertiani* appeared together. An hour before noon reached the pass in the main ridge, in an open pine forest, elevation 4,600 feet, thermometer at 50°, latitude near 41°. Snow in patches, and deciduous oaks mixed with the pines.

" Returning upon a different line, towards the lower valley of the Sacramento, near its head, we found in the descent a truly magnificent forest. It was composed mainly of a cypress and a lofty white cedar (*Thuja gigantea*) 123 to 140 feet high, common in the mountains of California. All were massive trees; but the cypress was distinguished by its uniformly great bulk. None were seen so large as are to be found in the coast mountains near Santa Cruz, but there was a greater number of large trees—seven feet being a common diameter—carrying the bulk 80 or 100 feet without a limb. At an elevation of 4,600 feet the temperature at sunset was 48°, and at sunrise 37°. Oaks already appeared among the pines, but did not yet show a leaf. In the meadow marshes of the forest grass was green, but not yet abundant, and the deer were poor. Descending the flanks of the mountain, which fell gradually towards the plain, the way was through the same deep forest. At the elevation of about 3,000 feet the timber had become more open, the hills rolling,

and many streams made pretty bottoms of rich grass ; the black oaks in full and beautiful leaf were thickly studded among the open pines, which had become much smaller and fewer in variety, and when we halted near mid-day, at an elevation of 2,200 feet, we were in one of the most pleasant days of late spring ; cool and sunny, with a pleasant breeze, amidst a profusion of various flowers ; many trees in dark summer foliage, and some still in bloom. Among these the white spikes of the horse-chesnut, common through all the oak region, were conspicuous. We had again reached summer weather, and the temperature at noon was 70°.

“ In the afternoon we descended to the open valley of the Sacramento, 1,000 feet lower, where the thermometer was 68° at sunset, and 54° at sunrise. This was the best timbered region that I had seen, and the more valuable from its position near the head of the lower valley of the Sacramento, and accessible from its waters.

“ *Bay of San Francisco and dependent country.*—The bay of San Francisco has been celebrated, from the time of its first discovery, as one of the finest in the world, and is justly entitled to that character even under the seaman's view of a mere harbour. But when all the accessory advantages which belong to it—fertile and picturesque dependent country, mildness and salubrity of climate, connexion with the great interior valley of the Sacramento and San Joaquin, its vast resources for ship timber, grain, and cattle—when these advantages are taken into the account, with its geographical position on the line of communication with Asia, it rises into an importance far above that of a mere harbour, and deserves a particular notice in any account of maritime California. Its latitudinal position is that of Lisbon ; its climate is that of southern Italy ; settlements upon it for more than half a century attest its healthiness ; bold shores and mountains give it grandeur ; the extent and fertility of its dependent country give it great resources for agriculture, commerce, and population.”

CHAPTER XIX.

THE DIGGINGS.

WHATEVER the advantages presented by California in other respects, however fertile its soil, however productive its fisheries, however well-peopled its plains with animals fit for human food, it is beyond all doubt that the attention of Europeans will be principally turned in that direction with a view to the gold of which nature has made it the depository. It will therefore be desirable in connection with the general description of its surface, its mountains, and its waters, to dwell particularly on the scenes recently witnessed in that part of the territory known as "The Diggings," and the approaches to them. From various authentic sources we have derived facts of considerable interest, which it will now be our task to bring in a connected form before the reader.

For many months after the first official announcement of the great mineral wealth discovered to exist in California, doubts continued to be expressed as to the truth of the florid representations sent forth to the world. These were regularly answered by statements of facts so astounding as to throw all that had previously transpired into the shade. Letters were published from private individuals who had traversed that region, and all concurred in the main point. A sinister report was indeed circulated that twenty-eight or thirty proprietors had set the story on foot with a view to improve their own possessions, but it was soon perceived, by the least discerning, that had such been the case, the secret of their trickery was in the keeping of such a multitude of persons, that it was impossible to prevent the meditated fraud from gaining publicity.

It may be observed that many of the accounts furnished of the Diggings, which contain the most favourable representations as to the mineral wealth of the country, spoke disparagingly of it in other respects.

The writer of a letter from San Joaquin deposed to the following effect:—"I am satisfied there is more gold in this country than has ever been talked of, and am also satisfied that it requires much more time and hard labour to find it than has ever

been talked of or thought of. A man must labour late and early to find gold to any extent, and frequently much time is exhausted without finding any. The digging of gold is much like digging a well in a stony country. Such labour as I have seen would kill me. I can get gold easier trading in the mines and mountains, which is now very profitable. I have travelled on foot over the worst mountains you can possibly imagine, 150 miles in the last ten days, and have suffered much. I leave here for the mines in the Stanislaus district, some 80 miles, the day after to-morrow, and must go it on foot, as my pack mules and horses will be fully loaded. We travel in day-time over mountain and prairie, and encamp at night by a little fire, tie our horses and mules close by, to prevent their being stolen by the Indians, and then lie down to rest in a blanket, waking often to see if the rascally savages have taken our horses and mules. We have raw pork and biscuit for breakfast, and go without dinner in order to have an appetite for supper, when we have biscuit, pork roasted on a stick, and water. They don't talk of pre-emption rights in this country, except town plots. The whole country, as far as I have seen, is a perfect waste of barren prairie and mountains. The gold region is large enough for as many as are willing to work it."

It needed not the prospect of rich pastures and smiling landscapes, to draw adventurers from all parts to the neighbourhood of San Francisco. The difficulties, however, which were to be surmounted were not slight: an almost interminable voyage round by Cape Horn must be encountered, or mountains, losing themselves in the clouds, were to be climbed, and the travellers would have to make a way for themselves through paths

"By human foot untrod,"

encountering only now and then a few wild Indians. There is something very striking in the description given by Captain Fremont, in his journey, of the ground which he had to traverse. Writing in the month of February, he says—"It had ceased snowing, and this morning the lower air was clear and frosty; and six or seven thousand feet above, the peaks of the Sierra now and then appeared among the rolling clouds, which were rapidly dispersing before the sun. Our Indian shook his head as he pointed to the icy pinnacles shooting high up into the sky, and seeming almost immediately above us. Crossing the river on the ice, and leaving it immediately, we commenced the ascent of the mountain along the valley of a tributary stream. The people were unusually silent; for every man knew that our enterprise was hazardous, and the issue doubtful. The snow deepened rapidly, and it soon became necessary to break a road. For this service, a party of ten was formed, mounted on the strongest horses; each man in succession opening the road on foot, or on horseback, until himself and his horse became fatigued, when he stepped aside; and, the remaining number passing ahead, he took his station in the

rear. Leaving this stream, and pursuing a very direct course, we passed over an intervening ridge to the river we had left. On the way we passed two low huts entirely covered with snow, which might very easily have escaped observation. A family was living in each; and the only trail I saw in the neighbourhood was from the door-hole to a nut-pine tree near, which supplied them with food and fuel. We found two similar huts on the creek where we next arrived; and, travelling a little higher up, encamped on its banks in about four feet depth of snow. Carson found near, an open hill side, where the wind and the sun had melted the snow, leaving exposed sufficient bunch grass for the animals to-night. The nut-pines were now giving way to heavy timber, and there were some immense pines on the bottom, around the roots of which the sun had melted away the snow; and here we made our camp and built huge fires. To day we had travelled 16 miles, and our elevation above the sea was 6,760 feet. Turning our faces directly towards the main chain, we ascended an open hollow along a small tributary to the river, which, according to the Indians, issues from a mountain to the south. The snow was so deep in the hollow, that we were obliged to travel along the steep hill sides, and over spurs, where wind and sun had in places lessened the snow, and where the grass, which appeared to be in good quality along the sides of the mountains, was exposed. We opened our road in the same way as yesterday, but made only seven miles; and encamped by some springs at the foot of a high and steep hill, by which the hollow ascended to another basin in the mountain. The little stream below was entirely buried in snow. The springs were shaded by the boughs of a lofty cedar, which here made its first appearance; the usual height was 120 to 130 feet, and one that was measured near by was six feet in diameter."

The captain, as there was no grass there, sent his horses back to some distance. The snow being beaten down when moist while the influence of the sun was felt in the day-time, was frozen at night, and gave a foundation sufficiently firm to sustain the horses and their burthens. He found great difficulty in making way. In endeavouring to break a road he was compelled to work along the mountain side, which was steep and slippery, the snow being covered by an icy crust. Sometimes one or more of the animals forming part of his convoy got out of the track, and slid along the field to the bottom, a hundred yards below. Some idea of the difficulties with which he had to contend may be formed from the following paragraphs:—

"Towards a pass which the guide indicated here, we attempted in the afternoon to force a road; but after a laborious plunging through two or three hundred yards, our best horses gave out, entirely refusing to make any further effort; and, for a time, we were brought to a stand. The guide informed us that we were entering the deep snow, and here began the difficulties of the mountain;

and to him, and almost to all, our enterprise seemed hopeless. I returned a short distance back, to the break in the hollow, where I met Mr. Fitzpatrick.

"The camp had been all the day occupied in endeavouring to ascend the hill, but only the best horses had succeeded, the animals, generally, not having sufficient strength to bring themselves up without the packs; and all the line of road between this and the springs was strewed with camp stores and equipage, and horses floundering in snow."

While in this situation two Indians joined the party. The information obtained from them was not very encouraging, as one of them, an old man, took upon himself to assure them, that continuing to advance, themselves and the animals would inevitably be lost in the snow. He spoke in a very loud voice, possibly from anxiety to be impressive, and with a view of saving his new friends from destruction. They had but a scanty knowledge of the Indian tongue, but they distinctly understood him to mean that they would find in their course "rock upon rock, snow upon snow, snow upon snow;" and he further declared, that even if they got through the snow, they would find it impossible to descend the mountains. These, by signs, he gave them to understand were so precipitous that it would be impossible for the horses to keep their footing, and to pursue the trails along their sloping sides.

Captain Fremont was not deterred by these unfavourable representations from prosecuting his journey. He gives the following graphic picture of his approach to the Sacramento:—"Accompanied by Mr. Fitzpatrick, I set out to-day with a reconnoitring party, on snow shoes. We marched all in single file, trampling the snow as heavily as we could. Crossing the open basin, in a march of about ten miles we reached the top of one of the peaks, to the left of the pass indicated by our guide. Far below us, dimmed by the distance, was a large snowless valley, bounded on the western side, at the distance of about 100 miles, by a low range of mountains, which Carson recognised with delight as the mountains bordering the coast. 'There,' said he, 'is the little mountain—it is 15 years ago since I saw it; but I am just as sure as if I had seen it yesterday.' Between us, then, and this low coast range, was the valley of the Sacramento; and no one who had not accompanied us through the incidents of our life for the last few months could realise the delight with which at last we looked down upon it. At the distance of apparently 30 miles beyond us were distinguished spots of prairie; and a dark line, which could be traced with the glass, was imagined to be the course of the river; but we were evidently at a great height above the valley, and between us and the plains extended miles of snowy fields and broken ridges of pine-covered mountains. It was late in the day when we turned towards the camp; and it grew rapidly cold as it drew towards night. One of the men became fatigued, and his feet began to freeze, and, building a fire in the trunk of a dry old cedar, Mr. Fitzpatrick remained with him

until his clothes could be dried, and he was in a condition to come on. After a day's march of 20 miles, we straggled into camp, one after another, at nightfall; the greater number excessively fatigued, only two of the party having ever travelled on snow shoes before. All our energies were now directed to getting our animals across the snow; and it was supposed that, after all the baggage had been drawn with the sleighs over the trail we had made, it would be sufficiently hard to bear our animals. At several places, between this point and the ridge, we had discovered some grassy spots, where the wind and sun had dispersed the snow from the sides of the hills, and these were to form resting-places to support the animals for a night in their passage across. On our way across, we had set on fire several broken stumps, and dried trees, to melt holes in the snow for the camps. Its general depth was five feet; but we passed over places where it was 20 feet deep, as shown by the trees."

Resolutely moving forward, and surmounting the various obstacles which successively presented themselves, he had the satisfaction to find that he had struck on the stream on which a Mr. Sutter had established himself. By this time he was near the summit of the pass in the dividing ridge of the Great Sierra, and his encampment was formed at an elevation of 9,338 feet above the level of the sea, being 2,000 feet higher than the South Pass in the Rocky Mountains. The point, however, which he had reached was very far from being the highest in that vicinity, as several peaks were in view which rose thousands of feet higher than the spot on which he found himself. Captain Sutter was the first white man who settled in that neighbourhood. About the year 1838 the Mexican government was disposed to favour colonization in order to break up the missions of the Jesuits, and effectually to keep down the Californians. He at that period obtained a grant of land, and a very considerable one too, being 60 miles in length, and about 12 miles wide.

The captain and those who accompanied him alone in the wilderness, resided for some months in an extemporaneous camp, composed of the tented waggons belonging to them, until they could prepare a few rough shanties protected by some outworks. While they were preparing these, and for some time subsequent to their erection, the new comers were greatly tormented by the Indians, who, attracted by their cattle, bore off, killed and devoured both oxen and horses. One night when sleeping in fancied security, no watch being observed by the party, more than twenty horses and mules were driven away by the depredators. The robbery was not known till Sutter's people awoke in the morning and discovered the ropes to be all severed. Having found out the retreat of the robbers, Captain Sutter determined to make a signal example of them. On the second morning after the abduction of the animals, the whites in strong numbers departed on their mission of vengeance, each man provided with an unerring rifle and a large bowie-knife, in addition to which they carried with them a howitzer. When the party reached

the rancheria or Indian colony, they found it tenantless. Disappointed in their object they resolved to destroy the village, and set fire to the huts. When the work of demolition had commenced, a simultaneous yell proceeded from a small and thickly-timbered island up the stream. Rushing in crowds from the high grass and underwood, were seen an assemblage of squaws, who uttered discordant whoops, and waving boughs of trees, breathed maledictions upon the incendiaries. Captain Sutter and his trappers at once divined to what quarter the men had withdrawn, and speedily hastened homeward to find their presentiments verified. On approaching the fort they heard the discharge of rifles, and reached it just in time to witness the entire discomfiture of the Indians, who were precipitately riding away to their woody fastnesses.

The determination thus evinced not to suffer outrage to escape with impunity, produced a salutary effect on his wild neighbours, and thenceforward Captain Sutter had had little cause of complaint. For some time after the chastisement so promptly administered, they still manifested a disposition to plunder the white man, and hovered about his dwelling in great numbers, but having a couple of howitzers at hand, he threw a shell from one of them, not at the natives, but so that it fell near them, and its terrifying explosion made such an impression on them that ever after, though he might occasionally suffer from their pilfering, his property and life were not seriously menaced. He had indeed, having shown his strength, done something to conciliate them, by offering them beneficial employment, and by their means his estate had been considerably improved.

In the hope of soon reaching the residence of this gentleman, Captain Fremont journeyed on over mountains, through ravines, and crossing numerous rivers. The travellers, as they advanced, were occasionally obliged to kill a horse, to be used as food, and great difficulties were still to be encountered. The horses failed from weakness, and the men were equally exhausted. One man, belonging to the party, named Derosier, having gone back some distance to bring up a horse, which the captain valued, did not return for some time. When he at length came in, sitting down with them, he began to recount where he had been. He had only been absent a night and a day, but he imagined that he had been away for a much longer period, and though he found them in a new resting-place, he imagined they were still at their former encampment. It was plain that his mind was deranged. It appeared that he had been lost in the surrounding wild, and hunger and fatigue, added to the weakness of body, brought on by his recent labours and the privations to which he had been subjected, had turned his brain. Captain Fremont truly remarks, "the times were severe when stout men lost their minds from extremity of suffering—when horses died, and when mules and horses ready to die of starvation, were killed for food."

It was at this period of his journey that an accident occurred which, interesting in itself, gives, with the accompanying circumstances, a livelier picture of the scenes through which the travellers had to pass, to reach the far-famed gold region, than simple description could convey. Mr. Preuss, one of the party, preceding the rest, moved onward, after the captain and those with him had encamped, and was in consequence lost. Mr. Preuss did not return that night, which caused some uneasiness to be felt on his account. They tracked his course the following day to a stream below the spot where they had rested. They fired their guns and shouted, but these failed to have the desired effect, and Mr. Preuss did not appear. The captain determined to keep at some distance from the river till he should reach a valley, still seeking the lost one as he proceeded. The narrative goes on:—"At every step the country improved in beauty; the pines were rapidly disappearing, and oaks became the principal trees of the forest. Among these, the prevailing tree was the evergreen oak (which, by way of distinction, we shall call the *live oak*); and with these, occurred frequently a new species of oak bearing a long slender acorn, from an inch to an inch and a half in length, which we now began to see formed the principal vegetable food of the inhabitants of this region. In a short distance we crossed a little rivulet, where were two old huts, and near by were heaps of acorn hulls. The ground round about was very rich, covered with an exuberant sward of grass; and we sat down for a while in the shade of the oaks, to let the animals feed. We repeated our shouts for Mr. Preuss; and this time we were gratified with an answer. The voice grew rapidly nearer, ascending from the river; but when we expected to see him emerge, it ceased entirely. We had called up some straggling Indian—the first we had met, although for two days back we had seen tracks—who, mistaking us for his fellows, had been only undeceived on getting close up. It would have been pleasant to witness his astonishment; he could not have been more frightened had some of the old mountain spirits they are so much afraid of suddenly appeared in his path. Ignorant of the character of these people, we had now an additional cause of uneasiness in regard to Mr. Preuss; he had no arms with him, and we began to think his chance doubtful. We followed on a trail, still keeping out from the river, and descended to a very large creek, dashing with great velocity over a pre-eminently rocky bed and among large boulders. The bed had sudden breaks, formed by deep holes and ledges of rock running across. Even here, it deserves the name of *Rock* creek, which we gave to it. We succeeded in fording it, and toiled about three thousand feet up the opposite hill. The mountains now were getting sensibly lower; but still there is no valley on the river, which presents steep and rocky banks; but here, several miles from the river, the country is smooth and grassy; the forest has no undergrowth; and in the open valleys of rivulets, or around spring heads, the low groves of live oak give the appearance of orchards in

an old cultivated country. Occasionally we met deer, but had not the necessary time for hunting. At one of these orchard grounds, we encamped about noon to make an effort for Mr. Preuss. One man took his way along a spur leading into the river, in hope to cross his trail; and another took our own back. Both were volunteers; and to the successful man was promised a pair of pistols—not as a reward, but as a token of gratitude for a service which would free us all from much anxiety.”

They continued to seek for Mr. Preuss without success the following morning. “In the afternoon,” says Captain Fremont, “we found an Indian village, consisting of two or three huts; we had come upon them suddenly, and the people had evidently just run off. The huts were low and slight, made like beehives in a picture, five or six feet high, and near each was a crate, formed of interlaced branches and grass, in size and shape like a very large hogshhead. Each of these contained from six to nine bushels. These were filled with the long acorns already mentioned, and in the huts were several neatly made baskets, containing quantities of the acorns roasted. They were sweet and agreeably flavored, and we supplied ourselves with about half a bushel, leaving one of our shirts, a handkerchief, and some smaller articles, in exchange. The river again entered for a space among hills, and we followed a trail leading across a bend through a handsome hollow behind. Here, while engaged in trying to circumvent a deer, we discovered some Indians on a hill several hundred yards ahead, and gave them a shout, to which they responded by loud and rapid talking and vehement gesticulation, but made no stop, hurrying up the mountain as fast as their legs could carry them. We passed on, and again encamped in a grassy grove. The absence of Mr. Preuss gave me great concern; and, for a large reward, Derosier volunteered to go back on the trail. I directed him to search along the river, travelling upward for the space of a day and a half, at which time I expected he would meet Mr. Fitzpatrick, whom I requested to aid in the search; at all events, he was to go no further, but return to his camp, where a *cache* of provisions was made for him. Continuing the next day down the river, we discovered three squaws in a little bottom, and surrounded them before they could make their escape. They had large conical baskets, which they were engaged in filling with a small leafy plant (*erodium cicutarium*) just now beginning to bloom, and covering the ground like a sward of grass. These did not make any lamentations, but appeared very much impressed with our appearance, speaking to us only in a whisper, and offering us smaller baskets of the plant, which they signified to us was good to eat, making signs also that it was to be cooked by the fire. We drew out a little cold horse meat, and the squaws made signs to us that the men had gone out after deer, and that we could have some by waiting till they came in. We observed that the horses ate with great avidity the herb which they had been gathering; and here also,

for the first time, we saw Indians eat the common grass—one of the squaws pulling several tufts, and eating it with apparent relish. Seeing our surprise, she pointed to the horses; but we could not well understand what she meant, except, perhaps, that what was good for one was good for the other. We encamped in the evening on the shore of the river, at a place where the associated beauties of scenery made so strong an impression on us that we have given it the name of the Beautiful Camp. The undulating river shore was shaded with the live oaks, which formed a continuous grove over the country, and the same grassy sward extended to the edge of the water; and we made our fires near some large granite masses which were lying among the trees. We had seen several of the acorn *caches* during the day; and here there were two which were very large, containing each, probably, ten bushels. Towards evening we heard a weak shout among the hills behind, and had the pleasure to see Mr. Preuss descending towards the camp. Like ourselves he had travelled to-day twenty-five miles, but had seen nothing of Derosier. Knowing, on the day he was lost, that I was determined to keep the river as much as possible, he had not thought it necessary to follow the trail very closely, but walked on, right and left, certain to find it somewhere along the river, searching places to obtain good views of the country. Towards sunset he climbed down towards the river to look for the camp; but, finding no trail, concluded that we were behind, and walked back until night came on, when being very much fatigued, he collected drift wood and made a large fire among the rocks. The next day it became more serious, and he encamped again alone; thinking that we must have taken some other course. To go back would have been madness in his weak and starved condition, and onward towards the valley was his only hope, always in expectation of reaching it soon. His principal means of subsistence were a few roots, which the hunters call sweet onions, having very little taste, but a good deal of nutriment, growing generally in rocky ground, and requiring a good deal of labour to get, as he had only a pocket knife. Searching for these, he found a nest of big ants, which he let run on his hand, and stripped them off in his mouth; these had an agreeable acid taste. One of his greatest privations was the want of tobacco; and a pleasant smoke at evening would have been a relief which only a voyageur could appreciate. He tried the dried leaves of the live oak, knowing that those of other oaks were sometimes used as a substitute; but these were too thick, and would not do. On the 4th he made seven or eight miles, walking slowly along the river, avoiding as much as possible to climb the hills. In little pools he caught some of the smallest kind of frogs, which he swallowed, not so much in the gratification of hunger, as in the hope of obtaining some strength. Scattered along the river were old fire-places, where the Indians had roasted mussels and acorns; but though he searched diligently, he did not there succeed in finding either. He had collected fire wood for the night, when

he heard at some distance from the river the barking of what he thought were two dogs, and walked in that direction as quickly as he was able, hoping to find there some Indian hut, but met only two wolves; and, in his disappointment, the gloom of the forest was doubled. Travelling the next day feebly down the river, he found five or six Indians at the huts of which we have spoken; some were painting themselves black, and others roasting acorns. Being only one man, they did not run off, but received him kindly, and gave him a welcome supply of roasted acorns. He gave them his pocket knife in return, and stretched out his hand to one of the Indians, who did not appear to comprehend the motion, but jumped back, as if he thought he was about to lay hold of him. They seemed afraid of him, not certain as to what he was. Travelling on, he came to the place where we had found the squaws. Here he found our fire still burning, and the tracks of the horses. The sight gave him sudden hope and courage; and, following as fast as he could, joined us at evening."

The severe difficulties of the journey were now rapidly diminishing. Captain Fremont had soon the satisfaction of finding that he was in the right track, and cheered with a prospect of seeing shortly a white man who was not of his party. In these interminable wilds the minor distinctions of townsmen or countrymen are comparatively disregarded, and to be joined by one of the same race was something. His narrative proceeds:—"March 6th. We continued on our road, through the same surpassingly beautiful country, entirely unequalled for the pasturage of stock by anything we had ever seen. Our horses had now become so strong that they were able to carry us, and we travelled rapidly—over four miles an hour; four of us riding every alternate hour. Every few hundred yards we came upon a little band of deer; but we were too eager to reach the settlement, which we momentarily expected to discover, to halt for any other than a passing shot. In a few hours we reached a large fork, the northern branch of the river, and equal in size to that which we had descended. Together they formed a beautiful stream, 60 to 100 yards wide; which at first, ignorant of the nature of the country through which that river ran, we took to be the Sacramento. We continued down the right bank of the river, travelling for a while over a wooded upland, where we had the delight to discover tracks of cattle. To the south-west was visible a black column of smoke, which we had frequently noticed in descending, arising from the fires we had seen from the top of the Sierra. From the upland we descended into broad groves on the river, consisting of the evergreen, and a new species of white oak with a large tufted top, and three to six feet in diameter. Among these was no brushwood; and the grassy surface gave to it the appearance of parks in an old settled country. Following the tracks of the horses and cattle in search of people, we discovered a small village of Indians. Some of these had on shirts of civilized manufacture, but

were otherwise naked, and we could understand nothing from them; they appeared entirely astonished at seeing us. We made an acorn meal at noon, and hurried on; the valley being gay with flowers, and some of the banks being absolutely golden with the Californian poppy (*eschscholtzia crocea*). Here the grass was smooth and green, and the groves very open; the large oaks throwing a broad shade among sunny spots. Shortly afterwards we gave a shout at the appearance on a little bluff of a neatly built *adobe* house with glass windows. We rode up, but to our disappointment, found only Indians. There was no appearance of cultivation, and we could see no cattle, and we supposed the place had been abandoned. We now pressed on more eagerly than ever; the river swept round in a large bend to the right; the hills lowered down entirely; and, gradually entering a broad valley, we came unexpectedly into a large Indian village, where the people looked clean, and wore cotton shirts and various other articles of dress. They immediately crowded around us, and we had the inexpressible delight to find one who spoke a little indifferent Spanish, but who at first confounded us by saying there were no whites in the country; but just then a well-dressed Indian came up, and made his salutations in very well spoken Spanish. In answer to our inquiries, he informed us that we were upon the *Rio de los Americanos* (the river of the Americans), and that it joined the Sacramento river about ten miles below. Never did a name sound more sweetly! We felt ourselves among our countrymen; for the name of the *American*, in these distant parts, is applied to the citizens of the United States. To our eager inquiries he answered, 'I am a *vaquero* (cow-herd) in the service of Captain Sutter, and the people of this *rancheria* work for him.' Our evident satisfaction made him communicative; and he went on to say that Captain Sutter was a very rich man, and always glad to see his country people. We asked for his house. He answered, that it was just over the hill before us; and offered, if we would wait a moment, to take his horse and conduct us to it."

The hope thus held out was soon realised. From Captain Sutter the travellers received a cordial welcome. This gentleman, who is a Swiss, it has been already stated, settled in California in 1838. Though he at first had some trouble with the Indians, Captain Fremont informs us that—"By the occasional exercise of well-timed authority, he has succeeded in converting them into a peaceable and industrious people. The ditches around his extensive wheat fields; the making of the sun-dried bricks, of which his fort is constructed; the ploughing, harrowing, and other agricultural operations, are entirely the work of these Indians, for which they receive a very moderate compensation—principally in shirts, blankets, and other articles of clothing. In the same manner, on application to the chief of a village, he readily obtains as many boys and girls as he has any use for. There were, at the time when Fremont visited him, a number of girls at the fort, in training for a future woollen

factory, but they were now all busily engaged in constantly watering the gardens, which the unfavourable dryness of the season rendered necessary. "The occasional dryness of some seasons," Fremont says, "I understood to be the only complaint of the settlers in this fertile valley, as it sometimes renders the crops uncertain. Mr. Sutter was about making arrangements to irrigate his lands by means of the Rio de los Americanos. He had this year sown, and altogether by Indian labour, 300 fanegas of wheat. A few years since, the neighbouring Russian establishment of Ross, being about to withdraw from the country, sold to him a large number of stock, with agricultural and other stores, with a number of pieces of artillery and other munitions of war; for these, a regular yearly payment is made in grain. The fort is a quadrangular *adobe* structure, mounting 12 pieces of artillery (two of them brass), and capable of admitting a garrison of 1,000 men; this, at present, consists of 40 Indians, in uniform—one of whom was always found on duty at the gate. As might naturally be expected, the pieces are not in very good order. The whites in the employment of Captain Sutter, American, French, and German, amount, perhaps, to 30 men. The inner wall is formed into buildings, comprising the common quarters, with blacksmith and other workshops; the dwelling-house, with a large distillery house, and other buildings, occupying more the centre of the area. It is built upon a pond-like stream, at times a running creek communicating with the Rio de los Americanos, which enters the Sacramento about two miles below. The latter is here a noble river, about 300 yards broad, deep and tranquil, with several fathoms of water in the channel, and its banks continuously timbered."

It was in 1844 that Captain Fremont happily terminated his advance to the Sacramento. He and his followers had endured great fatigue, and the party had suffered considerably in health. This, however, was not chargeable to the climate, but was ascribed in some measure to the "strange and unwholesome food which they had been in some cases compelled to use. Many horses were lost by their falling over precipices. On reaching Mr. Sutter's they had only half the number with which they started. "Out of 67 horses and mules with which we commenced crossing the Sierra only 30 reached the valley of the Sacramento, and they only in a condition to be led along."

The name of Captain Sutter will always be associated with the future history of California. When Captain Fremont approached his hospitable mansion or fort, he could hardly have anticipated the remarkable position in which that gentleman would be placed after the lapse of a very few years. To him almost exclusively may be attributed the discovery of the mineral wealth of the region he inhabits.

Such an event it might be thought was sufficiently extraordinary to satisfy the lovers of the wonderful, but such was not the case. Some accomplished romancer invented a story that he had been made acquainted with the secret deposits of gold

by the ghost of an Indian chief, to whom he had given a rifle, but who three months afterwards had been trampled to death by a buffalo. The ghost it was added had left the world of spirits to call on Captain Sutter, not merely out of friendship for that gentleman, but from a patriotic motive, as in consideration of the valuable information imparted he required the captain to purchase a ship load of rifles, and present one of them to every member of his tribe. Had the ghost come on such an errand it might have been surmised that he was greatly in want of society, from his anxiety to enable the Indians he had left behind to send more of their fellow-creatures to the shades than without such aid they would be likely soon to forward in that direction. This ridiculous invention of course was little regarded. The important discovery, however, was made known to Captain Sutter when he as little expected to be favoured with such a revelation as to look on one risen from the dead. His account of it we give in his own words, as reported by Dr. Brooks, in his *Four Months among the Gold Finders in California*—"I was sitting one afternoon," said the Captain, "just after my siesta, engaged, by-the-bye, in writing a letter to a relation of mine at Lucerne, when I was interrupted by Mr. Marshall—a gentleman with whom I had frequent business transactions—bursting hurriedly into the room. From the unusual agitation in his manner I imagined that something serious had occurred, and, as we involuntarily do in this part of the world, I at once glanced to see if my rifle was in its proper place. You should know that the mere appearance of Mr. Marshall at that moment in the Fort was quite enough to surprise me, as he had but two days before left the place to make some alterations in a mill for sawing pine planks, which he had just run up for me, some miles higher up the Americanos. When he had recovered himself a little, he told me that, however great my surprise might be at his unexpected reappearance, it would be much greater when I heard the intelligence he had come to bring me. 'Intelligence,' he added, 'which, if properly profited by, would put both of us in possession of unheard-of wealth—millions and millions of dollars, in fact.' I frankly own, when I heard this, that I thought something had touched Marshall's brain, when suddenly all my misgivings were put an end to by his flinging on the table a handful of scales of pure virgin gold. I was fairly thunderstruck, and asked him to explain what all this meant, when he went on to say, that, according to my instructions, he had thrown the mill-wheel out of gear, to let the whole body of the water in the dam find a passage through the tail-race, which was previously too narrow to allow the water to run off in sufficient quantity, whereby the wheel was prevented from efficiently performing its work. By this alteration the narrow channel was considerably enlarged, and a mass of sand and gravel carried off by the force of the torrent. Early in the morning after this took place, he (Mr. Marshall) was walking along the left bank of the stream, when he perceived something which he at first took for a piece

of opal—a clear transparent stone, very common here—glittering on one of the spots laid bare by the sudden crumbling away of the bank. He paid no attention to this; but while he was giving directions to the workmen, having observed several similar glittering fragments, his curiosity was so far excited, that he stooped down and picked one of them up. ‘Do you know,’ said Mr. Marshall to me, ‘I positively debated within myself two or three times whether I should take the trouble to bend my back to pick up one of the pieces, and had decided on not doing so, when, further on, another glittering morsel caught my eye—the largest of the pieces now before you. I condescended to pick it up, and to my astonishment found that it was a thin scale of what appears to be pure gold.’ He then gathered some 20 or 30 similar pieces, which on examination convinced him that his suppositions were right. His first impression was, that this gold had been lost or buried there by some early Indian tribe—perhaps some of those mysterious inhabitants of the west, of whom we have no account, but who dwelt on this continent centuries ago, and built those cities and temples, the ruins of which are scattered about these solitary wilds. On proceeding, however, to examine the neighbouring soil, he discovered that it was more or less auriferous. This at once decided him. He mounted his horse, and rode down to me as fast as it would carry him, with the news. At the conclusion of Mr. Marshall’s account,’ continued Captain Sutter, ‘and when I had convinced myself, from the specimens he had brought with him, that it was not exaggerated, I felt as much excited as himself. I eagerly inquired if he had shown the gold to the work-people at the mill, and was glad to hear that he had not spoken to a single person about it. We agreed,’ said the Captain, smiling, ‘not to mention the circumstance to any one, and arranged to set off early the next day for the mill. On our arrival, just before sundown, we poked the sand about in various places, and before long succeeded in collecting between us more than an ounce of gold, mixed up with a good deal of sand. I stayed at Mr. Marshall’s that night, and the next day we proceeded some little distance up the South Fork, and found that gold existed along the whole course, not only in the bed of the main stream, where the water had subsided, but in every little dried up creek and ravine. Indeed I think it is more plentiful in these latter places, for I myself, with nothing more than a small knife, picked up from a dry gorge, a little way up the mountain, a solid lump of gold which weighed nearly an ounce and a half. On our return to the mill, we were astonished by the work-people coming up to us in a body, and showing us small flakes of gold similar to those we had ourselves procured. Marshall tried to laugh the matter off with them and to persuade them that what they had found was only some shining mineral of trifling value; but one of the Indians, who had worked at the gold mines, in the neighbourhood of La Paz, in Lower California, cried out ‘Oro! oro!’ We were disappointed enough at this discovery, and supposed

that the work-people had been watching our movements, although we thought we had taken every precaution against being observed by them. I heard afterward, that one of them, a sly Kentuckian, had dogged us about, and that, looking on the ground to see if he could discover what we were in search of, he had lighted on some flakes of gold himself. The next day I rode back to the Fort, organised a labouring party, set the carpenters to work on a few necessary matters, and the next day accompanied them to a point of the Fork, where they encamped for the night. By the following morning I had a party of fifty Indians fairly at work. The way we first managed was to shovel the soil into small buckets, or into some of our famous Indian baskets; then wash all the light earth out, and pick away the stones; after this, we dried the sand on pieces of canvas, and with long reeds blew away all but the gold. I have now some rude machines in use, and upwards of 100 men employed, chiefly Indians, who are well fed, and who are allowed whisky three times a-day. The report soon spread. Some of the gold was sent to San Francisco, and crowds of people flocked to the diggings. Added to this, a large emigrant party of Mormons entered California across the Rocky Mountains, just as the affair was first made known. They halted at once, and set to work on a spot some 30 miles from here, where a few of them still remain. When I was last up at the diggings, there were full 800 men at work, at one place and another, with perhaps something like 300 more passing backwards and forwards between here and the mines. I at first imagined the gold would soon be exhausted by such crowds of seekers, but subsequent observations have convinced me that it will take many years to bring about such a result, even with ten times the present number of people employed. What surprises me,' continued the Captain, 'is that this country should have been visited by so many scientific men, and that not one of them should have ever stumbled upon these treasures; that scores of keen-eyed trappers should have crossed this valley in every direction, and tribes of Indians have dwelt in it for centuries, and yet that this gold should have never been discovered. I myself have passed the very spot above a hundred times during the last ten years, but was just as blind as the rest of them, so I must not wonder at the discovery not having been made earlier.'"

CHAPTER XIX.

GOVERNMENT OF SAN FRANCISCO.

It must be admitted that the anxiety evinced by Mr. President Polk to impress on the Congress of the United States the importance of giving California the advantages of a constitution were creditable to him as a politician and a man. Could this have been a matter of doubt while he lived, what has since occurred would have carried conviction to the minds of the most incredulous, and set the question at rest.

The inhabitants of San Francisco were not long in discovering that that liberty which leaves every one to do what he pleases, unchecked by a thought of law, was not the greatest of all imaginable blessings. Rude violence and sly fraud soon called for prompt redress. To allow fierce exasperation to take its full measure of revenge, whilst the blood was at fever heat, the humane could not approve; and "Lynch law," gladly resorted to in a moment of excitement, common sense as well as benevolence joined on reflection to censure and repudiate.

Such was the anomalous state of things in California, that it may be said there was, in point of fact, no government, no recognised law, and no provision for the administration of justice. General Riley was the governor, who resided at Monterey, the nominal seat of government. Commodore Jones was Commander-in-Chief of the naval forces, and had his flag hoisted on board the Warren frigate, in San Francisco harbour. General Smith, Commander-in-Chief of the land forces in California and Oregon, had his head-quarters in San Francisco. But these were names and names only, and all that they image to the mind was wanting. From the desertion of soldiers and sailors (particularly the former), the arm of military power was almost powerless. The military were posted in different parts of the country—a few at the Presidio of San Francisco, about three miles and a half distant, situated near the entrance to the harbour from the ocean. A small party of men at Venicia, and several small parties were posted at different parts of the Sacramento river, the great highway to the gold region. The soldiers were allowed indulgences to preserve their fidelity. Those at the Presidio were permitted to come into San

Francisco to work at all manner of jobs on their own account, by turns, on leave of absence. They were also allowed the use of the government cars and waggons, which they let out on job; while the men in the interior were allowed furloughs to go to the *placers*, to try their hands at "digging," by turns; the produce of their labours forming a common fund.

In the absence of legislative measures by the American Congress for the government of California, the administration of the country was attempted to be carried on by a mixed, and necessarily confused, system of Spanish law, grafted on American institutions, which it was found impossible to amalgamate and impracticable to work. The only semblance of a court of justice which existed in San Francisco was that vested in the office of *alcalde*. The functions and attributes of that magistrate, if fully carried out according to Spanish (Mexican) law, were incompatible with American notions of civil and criminal jurisprudence—inconsistent with free institutions, and totally repugnant to the feelings and sentiments of American citizens. Hence much bitterness of feeling was engendered, and a conflict arose between the *alcalde* (an American) and many of his fellow-citizens.

In this state of things a sort of extempore government was called into existence. An election took place in which, whatever else might be wanting, all the advantages of Universal Suffrage were secured. Existence seemed to be the only qualification required to entitle an individual to a vote. Certain names were proposed as eligible to be chosen and identified with authority, some of which were preferred to others, and duly installed in office. Out of the members so elected, a committee or junta was chosen, which styled itself "The Legislative Assembly of the district of San Francisco." This Assembly appointed a staff of salaried officers, such as a "Speaker," "clerk," "sheriffs," &c. One of its earliest acts was to abolish the office of *alcalde* on a charge of malfeasance, preferred against the officer filling the office. It then called upon him to deliver up the archives of his office. He resisted, and applied to General Riley, the Governor. The General remitted the case to a committee of a few of the citizens to investigate the charges; but they, instead of following the General's instructions, recommended the abolition of the office. The General, not considering himself justified in concurring with the recommendation of the committee, on the ground that the country must remain under Mexican law until Congress abolished it, the matter dropped for a time.

There were, however, certain other parties, who for reasons of their own did not care to let this matter sleep, and after awhile the Assembly renewed its demand on the *alcalde*, which he for some time evaded compliance with. At length the Assembly brought the affair to an issue by sending its sheriff, with a posse, who took possession of the records *vi et armis*. The *alcalde* presented a loaded pistol, which, as he told

a friend he always kept at hand, "as an auxiliary in the dispensing of justice" from the judgment-seat, and threatening to fire at any one who touched his "papers." This served him but little in the present emergency, as the sheriff had anticipated him. He presented a six-barrelled revolver at the head of the magistrate, when the latter, as he expressed himself the next day, "seeing his chance of the first shot to be lost gave up further resistance." The sheriff and his satellites possessed themselves of what books and papers they thought might be the records of the office, and carried them away to the "Hall of the Assembly," where they were locked up. The *alcalde* preferred a second complaint in person to the governor at Monterey, whereupon a proclamation was issued repudiating the conduct of the Assembly, on the ground that its members had "usurped powers which are vested only in the Congress of the United States." This proclamation and a counter address from the Assembly, appeared in the *Alta California* of the 14th of June. The *alcalde*, after a short interregnum, resumed his functions. He opened a new set of records for land title deeds, and for other judicial and notarial proceedings passed. He expected to have had his records restored, but the Assembly declined to part from them.

The attention of the little public of St. Francisco was necessarily fixed on the proceedings of this singularly constituted body. By some it was asserted, that its functions, or rather those it claimed, were monstrous. Some of their edicts were of an imperial character—such as have been sent forth by a Supreme Legislature in the old countries of Europe, while others of their "acts" were of a municipal character. They passed a "revenue law," whereby they imposed duties as follows:—Upon auction sales, a duty of one-and-a-half per cent. upon the amount of sales; upon all merchants, traders, and tavern keepers 200 dollars a-year, payable quarterly in advance; upon hawkers and pedlars 600 dollars a-year, payable monthly in advance; upon billiard table keepers, ten pin alley keepers, and other gambling-house keepers, 180 dollars a-year, payable monthly in advance. The merchants and others above designated were very hostile to this measure; but what with bullying some and cajoling others, the "Legislative Assembly managed to collect a very respectable 'contribution' out of the inhabitants, which was appropriated to pay the necessary expenses of the Assembly in devoting themselves to the interests of 'the people.'"

Out of such a state of things it might naturally be expected that great confusion and horrible discord would arise, but it is due to the parties fortuitously thrown together under circumstances so extraordinary, to confess that this did not immediately follow. The able and impartial correspondent of *The Times*, writing on this subject, stated some very remarkable facts. He remarked:—"In the absence of a constitutional and universally-acknowledged and respected government, of an effective military

force, of legally appointed tribunals of justice, of municipal authorities, of a militia, and of a police, it would naturally be supposed that this country was in a state of anarchy, confusion and disorder, if not of riot, rapine, and bloodshed. This is far from being the case, however extraordinary the assertion may appear. Merchandize of all sorts, furniture and liquors, are exposed in the streets, on the beach, in open yards—in short, all over the town, owing to the want of warehouse-room for storage, and remain (except in very few and solitary instances) untouched by the hands of the robber. There are few crimes or misdemeanors of a public character committed, and for a considerable period the general remarks in San Francisco were—‘How very quiet the place is.’ ‘Walk where you will of a dark night, and alone into the most lonely spots, and you are unmolested.’ ‘How peaceable the people.’ And ‘What security is felt with such unprecedented opportunities for the commission of all sorts of outrages.’ The Americans unriddle the enigma by the fact that the American people are well accustomed to self-government—‘they govern themselves, and never see at home any display of authority over them.’ The only exception to the above general character of good order which is worth citing, the writer proceeds to say, is that of the conduct of about 50 young men, most of them disbanded volunteers, the scum of the cities of North America, and who are known by the generic term of ‘Rowdies,’ and by the more peculiar cognomen of ‘Hounds,’ which they delight in, who, infesting the taverns and gambling-houses all day, where they are generally drunk or muddled, get up ‘sprees’ at night, by passing practical jokes upon the inhabitants, which are in most instances ill-natured and brutal.”

Changes so great as those, which within a few months the people of San Francisco were destined to know, necessarily caused in many things corresponding changes in the prices of things. The value of real property rose beyond computation, and rents kept pace with the advance of real estate as a natural consequence. A lot of land which was offered in 1848 for \$1,000, and rejected as being over-valued, sold in three lots, in 1849, for \$28,745, cash. Instances such as this were common.

A house built in the early part of 1849, which cost about \$40,000, was let in the summer to a tenant for one year at the rent of \$40,000, thus returning the capital invested in one year; besides that the owners had occupied the house for some months themselves. A house which was let for and after the rate of \$50 per annum, after a few months was taken at \$1,800!

How this affected the community in various ways cannot be fully detailed. The advance of prices would seem to be a serious matter for the poorer classes, but the price of labour was soon necessarily raised to meet this altered state of things. It was seen with amazement that a common porter got \$7 a day wages; a labourer, \$5;

a carpenter or other workman (tradesman), \$8; a journeyman, \$12; and, if a competent hand to superintend a job, as high as \$16 a day; a cook or steward obtained \$150 a month; sailors \$6 a day for jobbing about the harbour, and \$150 a month regular pay for a voyage.

Provisions, almost all of which consumed in the place were of foreign growth (except beef and a little mutton), were high in proportion.

Butter, \$2 per lb.; milk is very dear, and scarce; eggs are very scarce, and worth at a *café* three reals each (1s. 2d. sterling). All the vegetables used had been preserved, except a few potatoes, which came from Bodega and Ross on the coast. Agricultural operations were almost entirely suspended from the labourers having engaged in gold digging.

One very startling fact was mentioned in the public papers, communicated by parties resident in San Francisco, that many persons from foreign ports who had got out to Chagres on their way to the gold region, were so disheartened by the difficulties they had encountered, and those which they had still to meet, that they wanted courage to proceed. This was the case even with some who had reached Francisco. Though satisfied that the object of their journey might be obtained, though they had no doubt of the abundance of gold to be found at the diggings, the hardships and dangers of the climate with which the diggers had to contend, rendered the precious metal of little comparative value to them, the merchants being the only persons reaping any real benefit. Of these, some who were early in the field did amazingly well, and sold off all their commodities in a very short time, at an enormous profit.

But many found by woeful experience that this was a state of things which could not continue long. That which fetched a high price one day was on the next a mere drug in the market. Prices declined generally; and taste, varying and capricious in other parts of the world, was strangely fickle at San Francisco. Not only it was remarked, was the population changeable and uncertain, but the demand from time to time did not grow out of the ordinary and natural exigencies of a community. The desires, whims, tastes, and caprices of men, were to be administered to, who till then unused to wealth, suddenly enriched by gold digging, were carried away by sudden impulses into a vortex of extravagance and all sorts of wild indulgences; reckless in their expenditure, and indulging in luxuries that they formerly knew only by name. There was a capital market for champagne and liquors of the first class, and of preserved meats and fruits, and other delicacies, and this did not fall off from satiety so soon as might have been expected.

The following was published as a specimen of the prices obtained in the summer of 1849:—"Lumber—American pine, \$375 per 1,000 feet; Swedish pine, \$250 to \$275; Chilian lumber (Alerce boards, &c.) assorted, \$300 per 1,000 feet. Flour,

per sack of two quintals (200 lb. Spanish) \$9; abundant, but demand improving. Lumber sold in May as high as \$400 per 1,000 feet; and flour, in the spring, sold as high as \$18 per quintal. Potatoes, the produce of California, \$12 per quintal (of 100 lb.); scarce, and in demand. Hams, 36c. per lb.; mess beef, \$1 50c. per barrel; abundant, no demand. Preserved Meats—\$16 to \$20 per dozen. Sardines—\$22 per dozen, in half-boxes. Green Peas (preserved) \$14 per dozen. Cheese (Dutch)—35c. per lb. French prunes, \$5 50c. per jar of 11 lb. French brandy (in case), \$16 per dozen. English brandy preferred, but none in cases in the market. Martell's (English) brandy in cask, \$6 per gallon, but difficult of sale, as were all liquors in wood, bottles being of more convenient carriage to the mines. Champagne—\$15 4c. to \$25 and \$30 per dozen, according to quality. Port—No demand. Sherry—\$1 37c. to \$1 75c.; moderate demand. Madeira—\$2 per gallon; little demand. Madeira in bottles—\$3 50c. to \$4 75c. per dozen. Rum (New England)—55c. to 75c. per gallon, according to quality. Whiskey (Monongahalia)—\$1 50c. to \$1 75c. Gin (Dutch)—In cases, \$6 per dozen. Ale—Byass's, \$7 50c. per dozen. Some of this ale, brought from China, fetched this quotation. Glasgow Ale—Tennant's and Baird's, \$7 per dozen."

In this unnatural state of things little repose could be hoped for. Sinister reports were spread which caused many well-meaning citizens of the United States to feel very uneasy on account of their friends or relatives who had sought the embraces of Fortune in California. According to rumour, violence and rapine were in the ascendant, and all lawful authority was set at defiance. To allay the fears thus excited, the *New York Herald*, from letters describing the progress of affairs down to the middle of May, was able to assure its readers that the accounts of the riots at San Francisco, of the want of power of General Smith, and of his seeking shelter on board the ships of war in the port, had been generally discredited, but private advices showed that there was some truth in the reports from Mexico, and that General Smith had been compelled to leave San Francisco by the riotous proceedings of a portion of the inhabitants. The causes of the disorderly proceedings in California were attributed to the disappointment of the inhabitants on hearing that Congress had adjourned without extending the laws of the land over their territory. The country, it added, was in a miserable condition, and both life and property unsafe.

A further explanation of the riotous proceedings which had occurred, and which appeared in the journal already quoted, went to show that it partly grew out of a jealousy of foreigners. The writer stated that much discontent was manifested on the part of the Americans and Californians that the rich deposits of gold were thrown open to foreigners, who were arriving in regular organised and armed parties from all places on the Pacific for the sole purpose of digging and carrying away the gold. Such, according to him, was the influx of foreigners, that from Mexico alone

50,000 had gone. The editor added—"There was some reason in this complaint. The gold deposits in California should and must be preserved for the use of our own citizens; and interlopers, the scum of other countries, be prevented by law or force from landing with the view of digging and carrying from the country the gold. Should such an order of things exist long, the whole of the immense beds of gold will be taken to the four winds, to the manifest detriment of both the government and citizens."

The evil he had no difficulty in tracing to the abolitionists in Congress, who had opposed themselves to the introduction of slavery into California, and he did not scruple to say—"It would not be amiss were the odium of all these misfortunes to fall on the heads of a certain fanatical party composing the majority of the last Congress."

It added the following not very encouraging picture of the state of things when the accounts left—"The rainy season had set in—the 'placers' were covered with water. Everything was more plentiful than gold dust. A great many vessels had arrived, and were still arriving, with goods, which could be purchased nearly as cheap as in the States. A large number of persons had arrived at San Francisco, and were in a miserable condition, there being no houses to shelter them, and many had landed without a dollar in their pockets. One party, six in number, had returned disgusted, and reported that when they went out to the mines they were met by men who took away their provisions, &c., without any ceremony."

The same journal, however, while steadily contemplating the reverses and ruinous losses which might be experienced, considered these merely as individual evils, which could not retard the general progress of the newly-acquired region, and which it was confidently predicted would always offer a promising field for industry. What might be expected the writer in the *New York Herald* thus foreshadowed—"When the California excitement first burst forth on the Atlantic coast, immense cargoes of merchandize of all descriptions were dispatched there, and those exportations were continued up to a comparatively recent period. Upwards of 400 ships with merchandise and passengers were sent thither, involving an outlay of some \$15,000,000 or \$20,000,000 of capital. Those cargoes which were first sent there were sold at prices enormously high, and yielded a very handsome profit to the owners and proprietors. Our last intelligence from that celebrated region informs us that prices for all kinds of goods had reached a ruinously low mark, not nearly sufficient to cover expenses. Now, a great many ships with similar freights had yet to arrive there from New York and other cities on the Atlantic; and the natural consequence of the glut in the market which their arrival will cause will be a still further depreciation. What, then, is to become of those who invested their capital and means in these speculations? It is true that the first shipments realised good profits, because

they had the benefit of the high prices which at one time ruled in California; but the sudden fall in prices, produced by over-shipment, must bring about a revulsion here, and terrible destruction to those who engaged in the California trade at a late day. The revulsion may reasonably be expected; but the destruction which it will cause will not retard the progress of California, nor prevent it from becoming the greatest place on the Pacific. Emigration still pushes on towards the gold region. 20,000 or 30,000 western men are on their way there overland, who will reach California about the same time that the emigrants from the Atlantic will. Before next fall, there will be from 50,000 to 60,000 new arrivals in California from the western states and the Atlantic coast. Such an immense addition to the population may cause prices of goods to advance again; for their wants must be supplied; and those who can afford to hold on to their shipments awhile may yet realize a profit on their investments. In digging gold the western emigrants will have a much better chance than those from the Atlantic. They are accustomed to hard work—digging, chopping, and such other labour as is generally done on a farm—and will therefore be better able to undergo the great fatigue and drudgery consequent on gold digging. No great fortunes may be made; but when California receives this great inundation of emigrants it will make a more rapid progress than any other country in the world has ever done. Its progress already has astonished Europe. It is true the last accounts were not very promising; but industry will always receive its reward there."

That those who deem California their own, should closely watch the visitors who come from distant parts, to carry off its treasures might be expected, yet from another statement in the same *New York Herald*, it would seem that on this subject little anxiety need be felt, as, though the deposits of gold are supposed to be literally inexhaustible, the labour of digging and gathering was found so arduous that no persons but those who have been accustomed from their boyhood to manual toil could stand it. Even to those who are inured to hard labour the task is very severe. A natural consequence is, that thousands of persons from large cities who were in the possession of salaries as clerks, book-keepers, &c., and the professional men that wildly and impetuously rushed there with the confident expectation of making money enough in a year or two to support themselves for the rest of their lives, were disappointed, and were soon sighing for the ease and comforts which they so hastily abandoned in a moment of excitement, or returning to the places which they left.

This statement, unfavourable as it may appear, was kept in countenance by other reports obtained from persons of credit. All agreed that gold was to be found in very considerable quantities, but all seemed constrained to admit the truth of what they had long before been taught, namely, that "gold may be purchased too dearly."

and too dearly it surely must be purchased by those who obtained it on the hard conditions described in a letter written by Mr. Juan Redding, and dated Mexico, June 4th. This gentleman, professing to tell the plain unvarnished truth, delivered himself as follows:—"Having (writes Mr. Redding) left the 'placers' on the 25th of April, and San Francisco on the 1st of May—having seen with an impartial eye, all that is now passing in California, I deem it my duty to give to the public the truth in all its nudity. Although it is of a nature calculated to alarm many persons who have relations and friends in that country, it may, however, prevent others from rushing to their ruin—perhaps even it may be the means of saving their lives. Gold is not extracted with a knife. In order to obtain it excavations may be made of a yard (*vara*) or a yard and a half deep, by the same dimensions wide, with crowbars and pickaxes. These pits are dug in the bed of the rivers, or in their banks, and consequently in a short time they are filled with water. This inconvenience does not exist in the dry diggings. The labourers, up to their knees in water, are exposed during the day to a heat as powerful as that of the *tierra caliente* in Mexico; and during the night, when the cold is severe, they sleep under a tent if they have one, or, which is often the case, are compelled to pass it in the open air. Such is the true state of things. Some lucky individuals collect gold, but unfortunately the greater number do not obtain sufficient to defray their expenses, which are enormous; and the man who can return home in good health with what he has brought hither may consider himself fortunate indeed. Labour at the mines is that of a galley-slave; the most robust man cannot stand it a month. Upper California, the fertility of which has been so lauded, is, on the contrary, of a deplorable sterility when compared with the Mexican Republic. It is a country where only sufferings and privations are to be encountered."

This view of the subject was in a great measure confirmed, by a return given in the *New York Herald*, of the actual gains of various adventurers. "The steam ship Panama, left San Francisco on the 20th of June, with about 100 passengers and \$500,000 in gold dust and specie. She arrived at Panama on the night of the 11th of July, and would leave again on the 1st of August for San Francisco. There is but one opinion among the passengers with regard to the gold in California—it is still found in great quantities; but it is only the persons accustomed to hard work that can stand the fatigue of digging it. The number of persons at the mines is estimated at between 20,000 and 30,000—about one-half foreigners. Business at San Francisco was very dull, and dry goods and provisions selling below the original cost. Lumber was still in great demand, and selling for \$350 per 1,000. The Oregon steamer would leave San Francisco the 1st of July, and expects to be in Panama on the 20th. Our consul at Panama would not assume the responsibility of sending the California mails by the Crescent City. About 100

Americans were waiting at San Blas for a passage up; among them was the Reading Company, of Pennsylvania—all well.

“The British frigate, *Constance*, was at San Blas, with \$2,000,000, bound to Mazatlan, on the 21st of July.

“Annexed is the amount of gold on board the *Crescent City*, as freight: \$77,900, Howland and Aspinwall; 10,000, A. R. Eno; \$10,000, E. Bartlett; \$47,600, S. M. Williams; \$18,208, J. G. King and Sons; \$1,804, G. Treadwell; \$1,803, S. Knapp; \$868, D. Barret; \$13,500, Livingston, Wells, and Co.; \$18,000, J. E. Eagleston; \$18,920, N. A. Bachelor; \$12,000, G. H. Gould; \$1,391, Grinnell, Minturn, and Co. The whole amount of specie on board the *Crescent City* is \$231,994.

“The greatest efforts are making in California to organize a State government, and demand admittance into the Union.”

Such was the state of things in the early part of the summer of 1849. The wish of the Californians it was impossible, for reasons which have already been stated, to meet, and in consequence a loud outcry was raised against the authorities at Washington for claiming revenues without extending to them the benefits of a regular government.

TOPOGRAPHY OF

CHAPTER XX

PRICES OF LABOUR AND COMMODITIES.

THE foregoing accounts of the Californian territory, it will be observed, are for the most part furnished by American writers. In England there were shrewd critics who suspected the correctness of all representations which they might put forth. If a flattering picture were given of the prospects of those who sought California, it was assumed that the object of it was to draw English emigrants to the pretended *El Dorado*; if disappointments and disasters were reported, it was supposed that those with whom they originated wished to shut out British enterprise from that region, and keep all the gold to themselves. While minds were thus held in suspense, a letter published in the *Liverpool Mercury*, written by Captain L. H. Thomas, of the *Laura Ann*, attracted considerable attention. He had been compelled by the desertion of his crew to sell his vessel at California, and having resided eight months at San Francisco, had had many opportunities of seeing what was going on, and of learning how the gold seekers fared up to May, 1849.

Captain Thomas, anxious to take a dispassionate view of the whole subject, says the impression in the country was that the gains of the diggers had been over-rated. This fact, probable enough in itself, is confirmed by the evidence of many trustworthy witnesses. Instead of gaining from three to four ounces of gold dust in a day, he was of opinion that they did not obtain more than was worth eighteen or twenty dollars. This estimate was perhaps too low. The gold finders would be very poorly paid at the above rate, in a place where the humblest mechanic must be largely paid, and where for instance a jobbing carpenter had in some cases claimed thirty dollars daily for his assistance in the way of business. "Doubtless," says the captain, "many have collected large quantities of gold in a comparatively short space of time, and I know of various instances where individuals have returned with amounts varying in value from £1,500 to £3,000, the fruits of four or five months' labour; also some few instances where much larger amounts have been realized in even less time: but these are the exceptions; and many, very many, work day after

day for months, in acquiring just sufficient to procure the necessaries of life, enduring severe toil and privations innumerable (and which none but the strongest constitution can resist), and obliged eventually to return, with loss of health and blighted prospects. Scores have also terminated a miserable existence in these places, far from friends, and out of the reach of the sympathy or the assistance of any of their kind."

That there had been fatal miscalculation on the part of many who resolved to attempt digging for gold is a matter beyond all doubt. In sanguine expectation of realizing a vast property in a few months, they had been induced to sell their farms and stock at greatly reduced prices, to provide the capital necessary for their venture, and having done so, they found themselves very soon irretrievably ruined. According to Captain Thomas, "Wages for all descriptions of labour were high, carpenters and house-joiners being in great request, and obtaining from 30s. to 50s. per day. The common day-labourer never earned less than \$5 or 21s., one-half of which might be saved by those who are economical, provisions and clothing being less than one-half the price they had been at the end of last year. House-rent was still very high, the most paltry shed letting for \$50 per month. From the number of houses in frame and timber on the way thither, rents will soon doubtless be lower. During this summer most of the emigrants will have to put up with tents; great numbers had no better protection from the snows of the past winter."

It will be noted that the Captain speaks of carpenters and joiners obtaining from thirty to fifty shillings a-day, others speak of larger sums. In mentioning thirty dollars as having been in particular cases claimed by a jobbing carpenter, we have not exaggerated. Dr. T. Brooks, wanting the services of a carpenter, says—"We were told there were one or two in the diggings who might be hired, though at a very extravagant rate. Accordingly Bradley and I proceeded to see one of these gentlemen, and found him washing away with a hollow log and a willow-branch sieve. He offered to help us at the rate of thirty-five dollars a-day, we finding provisions and tools" (which could not be other than expensive there), "and would not be brought to charge less!" Both statements were doubtless correct. They seem to show that the price of labour, like that of everything else in that country, was subject to extravagant fluctuations, for which the most sober calculation could not in every case make adequate provision. Of this some very remarkable instances are given in Brooks's narrative. Shovels, he was informed by a gentleman, which used to be sold for one dollar were at that period not to be had for less than five or six. Bradley, one of his companions and a statesman, thought that a moderate advance, as that very day he had thirty dollars offered for a single spade. On the subject touched upon above, Captain Thomas supplies the following additional report:—

"The population of San Francisco is supposed to be about 7,000, fluctuating greatly—the arrivals and departures being very numerous. 600 passengers arrived by sea on the 30th of April, about one-half the number being from Chili. There were from 75 to 80 vessels in the bay (six of which were British), and nearly all deserted by officers and crews who had gone to the mines, or were employed in the launches and small vessels employed on the bay and rivers. Sailors competent to take charge of these were obtaining \$400 to \$500, and the men \$200 per month in this employment. Washing is one of the most serious items of expense, being \$8, or 34s. per dozen. Cooks and other servants in families were getting \$100 to \$150 per month, and very difficult to find at any wages.

"The market is very indifferently supplied. Beef can generally be obtained, price 10d. to 1s. per lb. Now and then pork and mutton are to be had at about the same price, but frequently the community have to use salt and preserved provisions. During the winter deer were brought in occasionally; wild geese and ducks were frequently abundant, and an agreeable addition to the bill of fare. Fish of good quality are abundant at the entrance of the harbour, but no person thinks it worth while to turn his attention to this profitable employment, by which I have not the slightest doubt two men could make \$40 to \$50 per day. Butter can be obtained now and then at from 3s. to 5s. per lb.; chickens at from 8s. to 20s. each; eggs, when to be procured, 12s. to 16s. per dozen; milk, when plentiful, 1s. to 1s. 6d. per quart; it was sold during winter 4s. per (half pint) glass. Potatoes are found occasionally at high prices. Beans and rice are generally used as substitutes, and are comparatively cheap.

"The wholesale prices of the undermentioned goods were as follow on the 1st of May:—

"Salt pork, from \$30 to \$35 per barrel of 200lb.; salt beef, from \$20 to \$25 ditto; flour, from \$12 to \$15 per bag of 200lb.; beans (Chili), from 2d. to 2½d per lb.; rice (fine white), from 3d. to 4d.; Coffee, from 6d. to 8d.; tea (good black), from 3s. to 3s. 6d.; tea (green), from 4s. to 5s.

"Spirits were still selling at high prices, about \$5 per gallon. Wines and beer were much lower, the latter having fallen from \$15 to \$6 per dozen. The consumption of spirits and beer is very large. Champagne is also in very general use. Cotton and woollen goods were abundant, and prices rapidly declining, and will probably be lower in San Francisco by October next, than in any other port in the Pacific."

It was the opinion of the officer from whom the above facts were obtained, that a fine field was opened in the gold region for unpresuming industry. A market gardener would be likely to do well, as the want of fresh vegetables was a matter of general regret. The climate and the soil he thought favourable to the growth of

most English vegetables. In that country they could be raised with less labour, and would readily sell for prices four times as great as they commanded in England; and, in his mind, there was no doubt but people of this class, as well as mechanics, would, in the long run, realize as much in pursuing their ordinary occupations as by working in the mines, and with infinitely more comfort and less risk.

There is much good sense in this suggestion, but it may not unreasonably be doubted, whether a sea captain is competent to determine what would best advance the interests of a cultivator of the soil. He is however to a great extent borne out by the representations of others whose province it is more especially to pronounce a judgment in such cases. According to their report the land "between the Sacramento valley and the country north of the bay of San Francisco is broken into mountainous ridges and rolling hills, interspersed with many smiling valleys, watered by a series of streams. There is no scarcity of wood in the interior, and the oak here predominates. Prairie lands stretch along the coast, and forests containing trees of large growth, exceeding in size those found in the slope of the Sierra Nevada. Wild oats in some parts spread over a vast area, comprehending an extent of many miles. Approaching the bay of San Francisco the climate is found materially different from that of the Sacramento valley, being eastward moist and much cooler. The mornings were similar to those experienced in the Rocky Mountains in August. They were pleasant and not too warm, and the nights were cool. Getting still nearer to the coast the mornings were occasionally complained of as cold, and sharp chilling winds prevailed, and thick fogs were frequently thrown over the land from the sea. They came on in the evening, continued through the night and part of the following day, and resemble what in England is called a Scotch mist, wetting the garments of those who are exposed to it like drizzling rain. To vegetation generally they are favourable, but not so to the wheat, which gets the rust from their influence. The winters are reported to be very favourable. The cold weather is not of long continuance, being frequently interrupted by days of mild temperature, with warm rains. At this period the fogs do not occur, and the sky is often bright. December is graced with blooming flowers, the grass is luxuriant in February, and the peach, the apple, and other fruits, then exhibit their variegated blossoms. The fruit, however, does not reach perfection so early as might be expected. It is considerably retarded by the chilling north-west winds, and does not ripen till August. Further inland the case is different. There the influence of these winds is not felt to the same extent. The sun has greater power, vegetation advances with bolder strides, and the fruits are fit for use at a much earlier period."

In the first rush for gold, spiritual concerns were but too likely to be forgotten. Up to the time when Captain Thomas left, San Francisco could not boast of a church.

Divine service had been performed twice every Sabbath in the school-house, by the Rev. T. D. Hunt, of the Presbyterian church, who arrived there in November, 1848, from the Sandwich Islands, and who had been appointed chaplain for one year, \$2,500 having been promptly subscribed by the residents as his salary for that time. In March four missionaries arrived from the United States. Two remained in San Francisco, and the others went to Benecia and San Jose. An Episcopal church and Baptist chapel had been sent out from New York. Before these could arrive out, some of the missionaries, by throwing several tents into one, made a tolerably capacious chapel marquee. Brooks saw in one of these a minister from one of the new England states preaching to a large congregation; so large that the tent was uncomfortably "hot and chokey."

It is worthy of particular note, that on one point respecting which considerable anxiety might naturally be entertained, Captain Thomas gives evidence of the most gratifying nature. On the part of the United States people, no offence had been taken at the multitudes seeking to share the prize which they had gained. Such an idea he earnestly applies himself to refute. He writes—"It is generally supposed that a hostile feeling exists between the citizens of the United States and the foreigners at the mines, and that the former are determined to prevent the latter working there. I can only say that I have not found this to be the case, but, on the contrary, a noble and generous feeling, the only answer to my repeated questions on this subject being, 'There is room enough for all;' and I have no hesitation in giving it as my opinion that any man, of whatever nation, who conducts himself with propriety, may go there, and remain equally unmolested with any of their own citizens."

CHAPTER XXI.

PRODUCTIVENESS OF THE DIGGINGS.

THE policy which the United States may eventually adopt with regard to California, shaped by the peculiar circumstance of an anomalous case, will perhaps be singular and original. Whatever the desire of the government it is not possible for them to act on the maxims which have heretofore been laid down either for the administration of a conquered place, or the regulation of a colony. Lord Bacon, no mean authority on the subject of colonization, says: "It is a shameful and unblessed thing, to take the scum of people, and *wicked condemned men to be those with whom you plant* They ought to be gardeners, ploughmen, labourers, smiths, carpenters, joiners, fishermen, fowlers, with some few apothecaries, surgeons, cooks, and bakers. . . . After looking about what kind of victual the country yields of itself to hand, consider what esculent things there are which grow speedily and within the year; as parsnips, carrots, turnips, onions, radishes, artichokes of Jerusalem, maiz, and the like. For wheat, barley, and oats, they ask too much labour: but with peas and beans you may begin; both because they ask less labour, and because they serve for meat, as well as for bread. And of rice likewise cometh a great increase, and it is a kind of meat. Above all, there ought to be brought store of biscuit, oatmeal, flour, meal, and the like, in the beginning, till bread may be had. For beasts or birds, take chiefly such as are least subject to diseases, and multiply fastest: as swine, goats, cocks, hens, turkeys, geese, house-doves, and the like. The victual in plantations ought to be expended almost as in a besieged town; that is with certain allowance. If there be iron ore, and streams whereupon to set the mills, iron is a brave commodity where wood aboundeth. Making of bay-salt, if the climate be proper for it, should be put in experience. Growing silk likewise, if any be, is a likely commodity. Pitch and tar, where store of firs and pines are, will not fail. So drugs and sweet woods, where they are, cannot but yield great profit. Soap-ashes, likewise, and other things that may be thought of.

But moil not too much under ground ; for the hope of mines is very uncertain, and useth to make the planters lazy in other things. For government, let it be in the hands of one assisted with some counsel: and let them have commission to exercise martial laws with some limitation. And above all, let men make that profit of being in the wilderness, as they have God always, and his service, before their eyes. Let not the government of the plantation depend upon too many counsellors and undertakers, in the country that planteth, but upon a temperate number; and let those be rather noblemen and gentlemen, than merchants; for the latter look ever to the present gain. Let there be freedoms from custom, till the plantation be of strength: and not only freedom from custom, *but freedom to carry their commodities where they may make their best of them*, except there be some special cause of caution. Cram not in people, by sending too fast, company after company; but rather hearken how they waste and *send supplies proportionably*; but so as the number may live well in the plantation, and not by surcharge be in penury. . It hath been a great endangering to the health of some plantation, that they have built along the sea and rivers, in marish and unwholesome grounds. Therefore, though you begin there to avoid carriage, and other like discommodities, yet build still rather upwards from the streams, than along. It concerneth likewise the health of the plantation, that they may have good store of salt with them, that they may use it in their victuals when it shall be necessary. It is the sinfulness thing in the world, to forsake or destitute a plantation once in forwardness: for, besides the dishonour, it is the guiltiness of blood of many commiserable persons."--*Bacon's Essays*, Civil and Moral, xxxiii.

Certainly it is very desirable that "the scum of people" should not be sent to form a new society, but how can the president of the United States keep his people in California pure and select, while schemers from all parts of the globe are hastening there? It would be well to send ploughmen, smiths, carpenters, &c., but can it matter what trade the parties claim, when all, whatever their previous habits, have been, on reaching the valley of the Sacramento, prepared to dig for gold? To plant parsnips, carrots, onions, and Jerusalem artichokes, would be wise, but who can be prevailed upon to do it while report tells that the most valuable of the precious metals may be had for picking up? Who will be content to endure the toil of planting, wait the progress of the seasons, and encounter the chances of a burnt-up or blighted crop, when more than the price of an abundant harvest may be secured in a few days? These are questions which can only be answered in one way.

It is easy to talk of sending a powerful force to the newly-acquired possessions, and proper persons to regulate the society there forming; but it is not quite so easy to maintain a powerful force there when sent, or to be secure of proper trustworthy

officials, where bribery is practicable on an unlimited scale. If, as we have been told,

"Gold can compass hardest things,
Can pocket states, and fetch and carry kings;"

what may it not be expected to do with poor soldiers, and moderately paid agents? The temptation is too mighty to be resisted, and a government distant some thousands of miles, is powerless. Colonel Mason, who visited the diggings, as it was believed, to report to the United States' government the actual condition of California, admitted in conversation with gentlemen whom he encountered there, the difficulty of keeping men to their duty under such circumstances. He was of opinion that some strong measures must be adopted to check the desertions, which up to that period had been very considerable. He thought it would be necessary to increase the pay of the soldiers, but this it will at once be seen would be a hazardous as well as costly experiment.

In the old Mexican mines, the regulations which were needed were such as proved that the wealth drawn from them was not unaccompanied by serious evils. We learn from an author of good repute, that "Each mining district of any importance had a resident deputy from the college of mines, chosen annually, and vested with powers, which in some cases superseded all other authority. Thus, if a man who was in the employment of miners was arrested for any offence, the deputy could insist on the magistrate sending the culprit to work during the day, and only allow him to be imprisoned during the night; so precise were the royal ordinances in favour of a department of industry which was considered almost the only real source of wealth in the country; the only one which enabled the inhabitants to pay for European goods, or furnish a revenue."

What would be thought in England, if a man, charged with having committed a serious offence against the laws, could only be sent to prison in the evening by the magistrate, and during the day must be allowed to attend to his business as if he had never made himself amenable to justice?

It is remarkable that the precious metals in Mexico were only obtained from mines. They do not appear to have been ever found in any considerable quantity on or near the surface of the soil. Beaufoy says:—

"The veins of silver were no doubt originally discovered by fires being accidentally lighted on spots where the ore 'cropped out' on the surface, and some portion of metal became smelted and seen: adventurers then began to sink a shaft, or much more commonly to dig a hole in the vein itself, following the richer lodes in all their sinuosities, groping about sometimes above, sometimes below, but leaving nothing behind that was worth taking away.

"I have heard many professional European miners declare, that no workings

TOPOGRAPHY OF

could be carried on more devoid of all system than those of the Mexicans; and yet, in despite of all the very best of theories, the ignoramuses had contrived to extract the precious contents.

"The Indians were not precisely treated as slaves, but certain rights were always exercised over them in regard to mining, which obliged a certain proportion of labourers to be furnished in each district, and to work at reduced wages."

The method of working the mines he thus describes:—

"When the workmen arrive at the opening of the shafts or levels, they strip entirely, except a cloth round the middle; then signing the cross, each takes a candle, and they commence a shrill dissonant hymn to the virgin, which gradually becomes softened and pleasing as they descend from the surface. Certain regulations are strictly adhered to with reference to the relieving of the labourers, or allowing them to quit the enclosed space above, except at stated periods; a measure of precaution to prevent the purloining of the richer ore.

"Very few fronts are so wide as to admit more than two men abreast, but the vein can be attacked in many places at once; and to insure the industry of miners the system of task-work is adopted, with the addition of a certain proportion of all rich ore they may dig out: it is likewise much more economical in the end to make them a certain allowance for finding themselves candles and gunpowder.

"If the shaft is perpendicular, a large wooden drum, turned by horses, raises to the surface a sort of sack, made of three great skins sewed together and filled with water; for the use of making tubs with staves is utterly unknown, and there are very few mines which have a level deep enough to drain a third part of their galleries. While this is going forward, the carriers work their way to the surface by means of notched poles put across a part of the shaft in a zig-zag fashion; and they then give their load to the breakers, who knock the ore into pieces exactly as if they were going to macadamize a road."

He adds—"The quantity brought 'to grass' by each individual would appear ridiculously small to those who are unacquainted with the difficulties of the low, underground passages, and the fatigues of mounting several hundred feet of notched sticks; but it is the long-established usage of the natives, and can only be got rid of by degrees, even in those mines where the shaft will allow of a bucket."

The total value of the gold and silver raised from the Mexican mines in 311 years, from 1492 to 1803, was according to Spanish official returns £1,039,542,690.

We have not the means of giving the total amount of gold raised since its discovery first attracted the attention of Europeans to California; but the *Times* of September 5, 1849, in announcing the Dee from the west coast of South America, mentions that, "At Chagres the Dee shipped specie and bullion value \$883,686, of

which about \$600,000 was in gold from California, \$103,000 being intended for New York, leaving for England from the Pacific \$780,686. At Santa Martha \$40,990 in gold were taken on board for England, and at Carthagena \$144,447 of which \$26,392 were for Jamaica, leaving for England \$118,055. From Jamaica the *Dee* also brings \$19,120; from St. Thomas's \$2,530; and from Fayal \$3,500; making a total brought to Southampton of \$964,951, or say about £193,000 sterling."

From this it appears that in the course of a few months there had been brought to a single port in England, nearly one-fifth as much treasure as the old Mexican mines had yielded to Spain in three centuries and a half! The total produce of the Californian diggings for the year was at that period expected to reach from \$20,000,000 to \$25,000,000, at \$16 to the ounce troy. This, of course, would be dependent upon the continuance of the ordinary health and quiet of the country.

The plans of the government, or of those supposed to act with the sanction of the government, were as gigantic as the hopes of the gold seekers were extravagant. It was proposed to build cities as rapidly as in an old country the authorities would speak of building churches, or indeed houses. One or two were deemed next to nothing, so it would seem to have been resolved to call them into existence wholesale; and accordingly it was regularly announced that the following cities were partly built or laid out in California:—Fremont, on the west bank of the Sacramento, opposite the mouth of Feather River; Vernon, situated on the east bank of Feather River; Boston, laid out on the north bank of Rio Americano; Sacramento City, laid out on the site of and to embrace the celebrated Suter's Fort; Suter City, laid out on the east bank of the river Sacramento; Webster, laid out nine miles from Sacramento City; Snezien, on the west bank of Sacramento; Tuolumne, laid out at the head of the Sacramento; Stanislaus, at the head of the river of the same name; Stockton, this thriving city is on a slough which contains the back-waters formed by a junction of the Sacramento and San Joaquin rivers; Bonicia, this city, the intended rival of San Francisco for the commerce of the Pacific, is situated on the Straits of Karquenez; a navy yard and military storehouses are to be built there. Nassa, on Nassa Creek, 40 miles from San Francisco; St. Lewis, laid out at the *embarcadero*s on the Sonora Creek; San Rafael, laid out at the old mission of that name, on the north side of San Francisco Bay; and Sancilito, in San Francisco Bay, which has a good anchorage. Total, 15.

CHAPTER XXII.

THE APPROACHES TO THE DIGGINGS.

As the season advanced and the fame of the gold region, far from declining, became more and more spread abroad, in some cases with startling exaggeration, the concourse of strangers attracted thither became great, not only beyond all precedent, but surpassing all calculation. In distant lands associations were formed, some in the shape of public companies, others in that of small bands of adventurers who resolved to go out together, and to seek their fortunes there. The London newspapers were crowded with advertisements relating to California, and severely as the English had suffered from the railway mania of 1845 and 1846, no small amount of capital was forthcoming to carry out the gold seeking speculation.

To shorten the distance to the favoured region, was the thought uppermost in every mind. One intrepid schemer, unwilling to wait till the Isthmus of Panama could be crossed by canal or a railroad, proposed to establish a short mode of transit over the mountains by means of aerial helps. But after all that science and ingenuity could suggest had been exhausted, the majority of those who sought California were led to prefer the old route by Cape Horn.

Immense numbers arrived out within a short period. The cholera, which in 1849 visited most of the nations of the Old World, did not spare America, and many perished on their journey, but crowds arrived in safety at San Francisco. Starting thence, they had to cross the bay to the leeward of Angel Island, enter the Bay of San Pablo, and proceed up to the Straits of Carquen to the new town of Benecia, where they entered the Bay of Susun, supposed to be the Freshwater Bay of Beechy, about 25 miles north-west of San Francisco. After passing the Bay of Susun (into which the Sacramento empties itself), the river runs in a northerly direction for about 15 miles through a low marshy country. At this point the river forms two branches—one, the main branch, running a little to the eastward; and another called the Sleugh or Sluicc. The latter is generally the one taken by boats, as it was

thought to save about 18 miles of a bend which the main river forms, the country between the branch and the main stream forming an island of considerable extent, thickly wooded and full of lakes and swamps formed by the overflowing of the river. The banks, upon entering the Sleugh, become bold and woody on both sides, the principal timber being white oak of an inferior kind, the sycamore, and a kind of bastard beech.

A part of the road winds up steep hills, and then descends into profound hollows; and the varieties of scenery which greet the eye of the advancing traveller, offer in many cases a more than common treat to the admirers of the picturesque, and the students of the sublime.

The Sleugh being left, the Sacramento takes a bold sweep in a northerly direction, being there about 120 yards across; and proceeding onwards, the Russian Embarcada is reached, a place where the Russians had formerly a commercial establishment. The features of the banks of the river continue the same, with a flat fertile country in the back-ground, covered with flowers of every description; and amongst the numerous bulbous plants, some of the lily species, very large and beautiful. These plains are bounded on each side of the river by a range of mountains at a distance of from 25 to 30 miles, those on the west side being low, and somewhat thickly wooded. Those on the eastern side consist of two distinct ridges, one apparently of secondary formation, from which the auriferous rivers descend; and beyond this the Grand Snowy Ridge, or Cordillera of the Sierra Nevada. After leaving San Francisco it was about eight days' journey to the new town called the Disembarcadera, situated near the junction of the Rio de los Americanos with the Sacramento. From this point, the river could be ascended in a whale-boat, to a distance of about 55 miles, where it is joined by another of its tributaries, called Feather River, which runs in a direction nearly due east from the mountains to the Sacramento, a broad, deep, rapid stream, its banks rather bolder than those of the other river, but presenting the same geological and botanical features. It has been remarked that none of those rivers, in their course towards the ocean, roll any stones along with them. No stones are to be found on the banks, the only thing approaching to them being "tosca," a petrification of sand. The only shells seen on the banks are a few bivalvula, or fresh-water mussel. Proceeding up Feather River to a distance of about 50 miles, the traveller looks on the junction of the Yuba (or "Juba"), the banks of which are covered with wild grapes. Here the current of the river is very rapid. A spacious valley then presents itself extending for about 15 miles, the whole of which is a magnificent country, fertile in the extreme, covered with clumps of wood, and wearing the aspect of a park in England.

Beyond the valley which has been mentioned, the mountainous region appears,

and the whole surface of the country presents a totally different appearance; the vegetation being confined principally to the pine and dwarf beech, and a small shrub of the myrtle species, being a hard iron-wood with which the Indians point their arrows. The ground here is of a red marly clay, and contains gold even to the summit of the hills, which are interspersed with large crags and rocks.

Now drawing near to that spot to which all these anxious journeyings tend, the writer from whom we derive the above particulars, reports the river, to which the adventurers must advance in order to reach "the placers," to be a formidable mountain-torrent, rushing forward impatient of restraint, and bursting over crags and rocks. It is in the sand here accumulated, a fine black sand, containing oxide of iron in abundance, that the gold dust is found. The gold runs in a regular strata, formed in his opinion, by the alluvial deposit from the neighbouring hills during a lapse of ages, and, as a natural consequence, arising from the gravity of the metal, the substrata is infinitely richer than that upon the surface.

Here, in June 1849, the writer with many others working on the Juba, at a place where the gold had already been taken from the surface, found that the deeper he went the richer the soil appeared to be, and as a proof that the gold was all alluvial (or brought down by the river), it was obtained in greater quantities at a bend where the river forms a bar. He also observed that where the hills on the sides of the river are bold and precipitate, the auriferous deposit was generally greater than where they run in a gentle slope. He had then seen no veins of gold in these mountains, but a specimen of gold imbedded in a matrix of white quartz was shown to him, said to have been brought from the Snowy Ridge. It was exceedingly rich, the greatest part of stone (ore) being pure gold, and weighing about 4lb. Troy.

Dr. Brooks gives a very interesting description of the diggings as first seen by him, of the active industry in progress there, and the impression it made on him and his companions. "As we neared the spot," he says, "the ground gradually became more broken and heavily timbered with oak and pine, while in the distance, and separated from us by deep forests of these trees, might be seen a long ridge of snow-capped mountains—the lofty Sierra Nevada. But we were too anxious to reach the gold to care much about the more unprofitable beauties of nature, and accordingly urged our horses to the quickest speed they could put forth. We were now traveling along the river's banks, and towards evening came in sight of the lower mines, here called the 'Mormon' diggings, which occupy a surface of two or three miles, along the river. There were something like forty tents scattered up the hill sides, occupied mostly by Americans, some of whom had brought their families with them. Although it was near sundown, everybody was in full occupation. At every few yards there were men, with their naked arms, busily employed in washing out the golden flakes and dust from spadefuls of the auriferous soil. Others were first

passing it through sieves, many of them freshly made with intertwisted willow branches, to get rid of the coarse stones, and then washing the lumps of soil in pots placed beneath the surface of the water, the contents of the vessel being kept continually stirred by the hand until the lighter particles of earth or gravel were carried away. A great number of the settlers, however, were engaged in making what are here called "cradles;" partly, I suppose, from their shape and partly from the rocking motion to which they are subjected. These machines were being roughly constructed of deal boards. Later in the day I watched one of them at work, and had the process explained to me. Four men were employed at it. The first shovelled up the earth; another carried it to the cradle, and dashed it down on a grating or sieve—placed horizontally at the head of the machine—the wires of which, being close together, only allowed the smaller particles of earth and sand to fall through; the third man rocked the cradle—I must confess I never saw one so perseveringly rocked at home; while the fourth kept flinging water upon the mass of earth inside. The result of this four-fold process is, that the lighter earth is gradually carried off by the action of the water, and a sort of thick black sediment of sand is left at the bottom of the cradle. This was afterwards scooped out, and put aside to be carefully dried in the sun to-morrow morning. I can hardly describe the effect this sight produced upon our party. It seemed as if the fabled treasure of the Arabian Nights had been suddenly realized before us."

The adventurer of whose observations and labours we previously availed ourselves, says: "That the beds of these rivers contain incredible riches I have little doubt, because after the freshets occasioned by the melting of the snow are reduced, and a part of the course of the stream is left dry, the earth dug out is much richer than that found up the banks; which is easily accounted for, as the principal bed of the river receives the auriferous deposit from all the hills which it passes from its source, whereas the higher banks can only be enriched by the gold washed down from the nearest mountains. Although there has been much exaggeration in the statements with regard to the gold in California which I had seen previous to my arrival in this country, nevertheless its riches appear almost incredible, and I have much hesitation in stating the quantities of gold which I know persons to have washed out in a very short time. I will confine myself to the fact which has come under my own personal observation, that a man with a common washing-pan, which is merely a round wooden bowl, containing about the fourth part of a bushel of earth, in six or seven hours' labour, obtains from one to two ounces of gold—of pure gold, too; and this the men under my direction are actually doing. Let me remark that this is a sum which has never been got out of the gold washings of Chili or Peru, by a regular routine of labour, at their highest pitch of fertility since the Conquest."

Mention has already been made of the inconveniences experienced and anticipated from the absence of known laws. Up to the period to which the above sketches came down, things seem to have gone on pretty well, but it was something like the Draco preventive of crime that kept all quiet. Our author says, "We are entirely without laws or authority in the mines (as indeed is the case in all other parts of the country), and although the miners are generally composed of a bold, daring, and adventurous race, a code of honour and justice has been voluntarily established amongst themselves, which is strictly observed. No miner encroaches upon the washing-ground of his neighbour, although he sees sometimes that it is vastly richer than his own. Robbery has been hitherto entirely unknown; and you leave your tent, containing your goods, provisions, and gold (the latter buried, however), and go out to your labour without leaving behind any other safeguard than the good faith of your neighbours, which on the river Juba has never been violated; though, in case of violation, it has been agreed upon by all that summary and severe chastisement would follow. The penalty of a conviction of robbery before a jury of miners would be certain and speedy death by hanging to a bough of the nearest tree."

The able commentator whose name is not given, but who might almost be guessed to be Captain Sutter, does not, however, offer such a flattering account of what may be done at the diggings, but the correspondent in forwarding them to the journal in which they were published, deemed it right to warn such of its readers as its perusal might dispose to leave their homes for this land of promise, that gold digging is a most laborious and almost killing occupation. The narrator, just quoted, he adds, "is a gentleman—a scientific man—with ample means at his command, and Chilian-Perus, or semi-serfs from his own estate, who look upon him as they would on a small deity. They row his launches and boats against rapid streams and strong currents, saddle his horses, cook his food, and dig his gold. They carry on all the material operation. His is the mental labour only. Far different is the task of the poor working gold digger. After he gets, by great labour and at a considerable expense, to the scene of operations, his hard work really only begins. He must be constantly in the water to carry on the operation of washing gold; and the work, which is performed in a stooping posture, is so hard, that while his feet are immersed in cold water, the upper part of his body is streaming with profuse perspiration, with a burning sun over his head. Then his living, unless he spends the best portion of his earnings, is poor and very expensive, and his lodging is oftener than not on the cold ground. Then again he may not be successful. All are not lucky. Gold finding is like gambling—the dice may throw high, or they may beggar the player. In short, the English navigator, the Scottish ditchman, and the Irish hodman will do well at digging, if they do not overwork themselves; but to all others I would say,

'Leave well alone.' It is madness in a man who cannot sleep out under a tree, eat the hardest of fare, and endure great fatigue, to turn a working gold miner."

Notwithstanding that which under the circumstances must be deemed the best authority declared the preferable route to the gold region was by Cape Horn, great numbers who proposed journeying thither from the United States, thought it advisable to attempt proceeding overland. They advanced in three different directions, but the majority resolved to take their course by the Missouri, the Platte, and Fort Laramie. Having passed the last place great difficulties were to be encountered, and serious impediments to the advance of such exploring parties. Dread of these caused less adventurous spirits to take what was called the middle, or old Spanish trail, that being the most direct route from Santa Fé, while others went to the south of the Gila. With difficulties like these in their way, it is not to be wondered at that many of the adventurers should be well content to avoid journeying in the vicinity of Fort Laramie.

Fort Laramie is connected with the mouth of the Platte and the Upper Missouri, by good roads. It is situated in a mountainous region. The main chain of the Black or Laramie Hills rises precipitously, seemingly to the clouds. Leaving Fort Laramie, the whole face of the country changes its aspect. "Eastward of that meridian," says Fremont, "the principal objects which strike the eye of a traveller are the absence of timber, and the immense expanse of prairie, covered with the verdure of rich grasses, and highly adapted for pasturage. Wherever they are not disturbed by the vicinity of man, large herds of buffalo give animation to this country. Westward of Laramie River, the region is sandy, and apparently sterile; and the place of the grass is usurped by the *artemisia* and other odoriferous plants, to whose growth the sandy soil and dry air of this elevated region seem highly favourable.

"One of the prominent characteristics in the face of the country is the extraordinary abundance of the *artemisias*. They grow everywhere—on the hills, and over the river bottoms, in tough, twisted, wiry clumps; and, wherever the beaten track was left, they rendered the progress of the carts rough and slow. As the country increased in elevation on our advance to the west, they increased in size; and the whole air is strongly impregnated and saturated with the odour of camphor and spirits of turpentine which belong to this plant. This climate has been found very favourable to the restoration of health, particularly in cases of consumption; and possibly the respiration of air so highly impregnated with aromatic plants may have some influence."

The navigation of the Platte, on which Fort Laramie is established, is among the most startling narratives contained in Fremont's earlier journey. The adventurers paddled their way in a light boat constructed for the purpose, and approached "a

ridge, through which the river passes by a place called 'cañon' (pronounced *kanyon*), a Spanish word, signifying a piece of artillery, the barrel of a gun, or any kind of tube; and which, in this country, has been adopted to describe the passage of a river between perpendicular rocks of great height, which frequently oppose each other so closely overhead as to form a kind of tunnel over the stream, which foams along below, half choked up by fallen fragments. Between the mouth of the Sweet Water and Goat Island, there is probably a fall of 300 feet, and that was principally made in the cañons before them; as, without them, the water was comparatively smooth. As they neared the ridge, the river made a sudden turn, and swept squarely down against one of the walls of the cañon with great velocity, and so steep a descent, that it had, to the eye, the appearance of an inclined plane. When they launched into this, the men jumped overboard to check the velocity of the boat, but were soon in water up to their necks, and the boat ran on; but they succeeded in bringing her to a small point of rocks on the right, at the mouth of the cañon. Here was a kind of elevated sand beach, not many yards square, backed by the rocks, and around the point the river swept at a right angle. Trunks of trees deposited on jutting points twenty or thirty feet above, and other marks, showed that the water here frequently rose to a considerable height."

The travellers landed to reconoitre the ground, but shrinking from the toil of carrying their baggage across the ridge, the captain determined to run the cañon. They again embarked, and at first attempted to check the way of the boat; but the water swept through with so much violence that they narrowly escaped being swamped, and were obliged to let her go in the full force of the current, and trust to the skill of the boatmen. The dangerous places in this cañon were where huge rock had fallen from above, and hemmed in the already narrow pass of the river to an open space of three or four to five feet. These obstructions raised the water considerably above, which was sometimes precipitated over in a fall; and at other places where this dam was too high, rushed through the contracted opening with tremendous violence. Had their boat been made of wood, in passing the narrows she would have been staved; but her elasticity, being made of skins, preserved her unhurt.

Three cataracts were there; and having landed to breakfast they re-embarked, "and in about twenty minutes reached the next cañon. Landing on a rocky shore at its commencement, they ascended the ridge to reconnoitre. So far as they could see, the jagged rocks pointed out the course of the cañon, on a winding line of seven or eight miles. It was simply a narrow, dark chasm in the rock; and here the perpendicular faces were much higher than in the previous pass, being at this end two to three hundred, and further down, five hundred feet in vertical height."

The captain's report proceeds:—"Our previous success had made us bold, and we determined again to run the cañon. Everything was secured as firmly as possible; and having divested ourselves of the greater part of our clothing, we pushed into the stream. To save our chronometer from accident, Mr. Preuss took it, and attempted to proceed along the shore on the masses of rock, which in places were piled up on either side; but, after he had walked about five minutes, everything like shore disappeared, and the vertical wall came squarely down into the water. He therefore waited until we came up. An ugly pass lay before us. We had made fast to the stern of the boat a strong rope about fifty feet long; and three of the men clambered along among the rocks, and with this rope let her down slowly through the pass. In several places high rocks lay scattered about in the channel; and in the narrows it required all our strength and skill to avoid staving the boat on the sharp points. In one of these, the boat proved a little too broad, and stuck fast for an instant, while the water flew over us; fortunately, it was but for an instant, as our united strength forced her immediately through. The water swept overboard only a sextant and a pair of saddle-bags. I caught the sextant as it passed by me; but the saddle-bags became the prey of the whirlpools. We reached the place where Mr. Preuss was standing, took him on board, and, with the aid of the boat, put the men with the rope on the succeeding pile of rocks. We found this passage much worse than the previous one, and our position was rather a bad one. To go back, was impossible; before us, the cataract was a sheet of foam; and shut up in the chasm by the rocks, which, in some places, seemed almost to meet overhead, the roar of the water was deafening. We pushed off again; but, after making a little distance, the force of the current became too great for the men on shore, and two of them let go the rope. Lajeunesse, the third man, hung on, and was jerked headforemost into the river from a rock about twelve feet high; and down the boat shot like an arrow, Basil following us in the rapid current, and exerting all his strength to keep in mid-channel—his head only seen occasionally like a black spot in the white foam. How far we went, I do not exactly know, but we succeeded in turning the boat into an eddy below. '*Cré Dieu,*' said Basil Lajeunesse, as he arrived immediately after us. '*Je crois bien que j'ai nagé un demi mile.*' He had owed his life to his skill as a swimmer, and I determined to take him and the two others on board, and trust to skill and fortune to reach the other end in safety. We placed ourselves on our knees, with the short paddles in our hands, the most skilful boatman being at the bow; and again we commenced our rapid descent. We cleared rock after rock, and shot past fall after fall, our little boat seeming to play with the cataract. We became flushed with success, and familiar with the danger; and, yielding to the excitement of the occasion broke forth together into a Canadian boat song. Singing, or rather shouting, we dashed along; and were, I

believe, in the midst of the chorus, when the boat struck a concealed rock immediately at the foot of a fall, which whirled her over in an instant. Three of my men could not swim, and my first feeling was to assist them, and save some of our effects; but a sharp concussion or two convinced me that I had not yet saved myself. A few strokes brought me into an eddy, and I landed on a pile of rocks on the left side. Looking around, I saw that Mr. Preuss had gained the shore on the same side, about twenty yards below; and a little climbing and swimming soon brought him to my side. On the opposite side, against the wall, lay the boat bottom up; and Lambert was in the act of saving Descoteaux, whom he had grasped by the hair, and who could not swim; '*Lache pas,*' said he, as I afterwards learned, '*lache pas, cher frère.*' '*Crains pas,*' was the reply, '*Je m'en vais mourir avant que de te lâcher.*' Such was the reply of courage and generosity in this danger. For a hundred yards below, the current was covered with floating books and boxes, bales of blankets, and scattered articles of clothing; and so strong and boiling was the stream, that even our heavy instruments, which were all in cases, kept on the surface, and the sextant, circle, and the long black box of the telescope, were in view at once. For a moment, I felt somewhat disheartened. All our books—almost every record of the journey—our journals and registers of astronomical and barometrical observations—had been lost in a moment. Of everything on board, the only article that had been saved was my double-barrelled gun, which Descoteaux had caught, and clung to with drowning tenacity. The men continued down the river on the left bank. Mr. Preuss and myself descended on the side we were on; and Lajeunesse, with a paddle in his hand, jumped on the boat alone, and continued down the cañon. She was now light, and cleared every bad place with much less difficulty. In a short time he was joined by Lambert, and the search was continued for about a mile and a half, which was as far as the boat could proceed in the pass.

"Here the walls were about five hundred feet high, and the fragments of rocks from above had choked the river into a hollow pass, but one or two feet above the surface. Through this and the interstices of the rock, the water found its way."

Scenes of great disorder marked the advance of the travellers. The report made of them reminds the reader of the confusion, misery, and dissipation in which the crusaders of the middle ages were involved on their way to Jerusalem. Some hoped by gambling to possess themselves of the property of their fellow emigrants, and thus make themselves rich before they arrived at the diggings. All of course could not win, and the ruined losers saw their hopes withered, and not unfrequently sunk beneath the combined effects of disappointment, fatigue, and climate. To some it occurred that mines might be found nearer home than those they had origi-

nally proposed to reach, and applied themselves to seek for them, and it was said with considerable success.

But of the three routes by land the most northern was deemed by many most eligible, and the road between Fort Kearney and Fort Hall was thronged with eager multitudes. At one period thirty thousand gold seekers moved in that direction, taking with them more than fifty thousand head of stock. Of these the larger proportion were oxen, and as their proprietors from the information they had received, feared when they drew near the mountains that pasture would fail, each was anxious to be first, and sought by exerting greater speed to distance his fellows, till their advance became neither more nor less than a race, in which horses, oxen, and men rushed desperately forward. Then it was that they found themselves dangerously impeded by the various means and appliances which they had previously secured at no trifling expense; and as at sea, in a storm, valuable commodities are recklessly cast overboard to lighten the vessel, so property was eagerly abandoned as an incumbrance which threatened a total loss of all. In this state of things a frightful waste was witnessed, and we are told waggons were cut up by hundreds to make pack-saddles. Oxen and mules could not be replaced at any price, only exchanged—a mule for a yoke of oxen; and every man who could barter his oxen for mules or ponies abandoned his waggons, and packed up a few pounds of provisions. Such as were obliged to proceed with their waggons anxiously lightened their cargoes; making the nicest calculation of the provision necessary for the distance, and throwing the rest away. The track for 200 miles was strewn with waggons, trunks, axes, picks, shovels, harness, bacon, lead, flour, biscuit, beans, coats, pants, boots, shoes, chairs, &c. Such a destruction of property, and so willingly made, was probably never seen before. Every one was striving to push ahead of the crowd, and the cattle were breaking down by wholesale. The prospect of the laggards was gloomy indeed. Should they find the pasture exhausted on the regular track, they would have to diverge into the ravines, and suffer so much delay as not to arrive at the Sierra Nevada till the falling snow would make the passage impossible. As early as June, before the emigrants had got a third of their distance, 400 had perished from cholera, which dogged their path, and even met them wherever they came, as the Indian tribes were everywhere smitten by the plague. The want of pasture and water in the latter part of the route, was so much greater than in the former that the most serious apprehensions were felt as to the fate of the 30,000 adventurers, in passes and plains, where strong men, well mounted, and otherwise prepared for the journey, have perished in companies, after supporting life for a time by the last and most horrible of expedients.

CHAPTER XXIII.

THE ABORIGINAL NATIVES.

IN speaking of the inhabitants of California, the Spanish Mexicans are generally understood to be meant, but the real Californians or Indians must not be forgotten. From Captain Sutter's account of what he experienced when first established in their vicinity, a tolerably correct idea may be formed of their character. Wild and predatory, though not formidable to civilised warriors, they are sometimes capable of doing great mischief to the unsuspecting emigrant. However confused their notions generally, they have a clear perception that the white men who have possessed themselves of their lands, are intruders, and where they have power they in many cases use it unrestrained by any considerations of pity or humanity. They have less courage than belongs to the Indians in other parts of the American continent, and are among the rudest and most untaught specimens of the human race. Their skin is of a dark copper colour, they are small of stature, the formation of the head and features evidencing them to be of Asiatic origin. They generally go armed with bows and arrows, but have a great dread of a white man and fire-arms. Costume they have none, as for the most part they dispense with clothing altogether. The men go quite naked, but the women wear a very primitive covering, much like that of our first mother, and which is merely a small bunch of rushes, secured round the middle by a thong of the same frail material. Their features, to the eye of an Englishman, are anything but agreeable. Generally speaking the countenances of the males are better than those of the squaws. For their habitations, they are of the most deplorable character. Wretchedly constructed circular wig-wams, formed of branches of trees and plastered over with clay or mud, form their only shelter from the storm.

Like other untutored savages they have some idea of a mighty Being, or more than one, invisible to the mortal eye, but observant of the doings of men. They speak of a good spirit which they call "Puis," and they say that the eagle (which abounds in the country) is his minister. They also believe in the existence of a

devil, or evil genius, and the fox they consider his agent or minister. They direct no prayers to the good spirit, because they say that he will do them no harm; and all their supplications are made to the evil one. They however suppose that the consciousness of their departed friends may survive and ascend to heaven. They burn the body, and say that the spirit of the deceased ascends to the sky in the smoke of the body. The corpse is placed upon a funereal pile of wood, and they sing a low monotonous song during the time it is being consumed. The mourning is even more singular than this ceremony. When a person dies, the women relations of the deceased cut off their hair, and smear their heads, necks, and breasts with pine pitch mixed with charcoal, painting also a streak upon the nose, and one underneath each of the eyes. This paint is allowed to fall off by time, and as long as it exists the term of mourning continues.

Fremont, in his exploring journey, gives us incidentally some lively pictures of the natives he encountered, which in most respects bear out what has since been reported on this subject. On his line of march, at the end of January, he writes:—"During the day a few Indians were seen circling around us on snow-shoes, and skimming along like birds; but we could not bring them within speaking distance. Godey, who was a little distance from the camp, had sat down to tie his mocassins, when he heard a low whistle near, and, looking up, saw two Indians half hiding behind a rock about forty yards distant; they would not allow him to approach, but breaking into a laugh, skimmed off over the snow, seeming to have no idea of the power of fire-arms, and thinking themselves perfectly safe when beyond arm's length.

"On the following day," he continues, "I went ahead with Mr. Fitzpatrick and a few men, leaving the camp to follow, in charge of Mr. Preuss. We followed a trail down a hollow where the Indians had descended, the snow being so deep that we never came near the ground; but this only made our descent the easier, and, when we reached a little affluent to the river at the bottom, we suddenly found ourselves in presence of eight or ten Indians. They seemed to be watching our motions, and, like the others, at first were indisposed to let us approach, ranging themselves like birds on a fallen log on the hill-side above our heads, where being out of reach, they thought themselves safe. Our friendly demeanour reconciled them, and, when we got near enough, they immediately stretched out to us handfuls of pine nuts, which seemed an exercise of hospitality. We made them a few presents, and, telling us that their village was a few miles below, they went on to let their people know what we were. The principal stream still running through an impracticable cañon, we ascended a very steep hill. We passed through a small meadow a few miles below, crossing the river, which depth, swift current, and rock, made it difficult to ford; and, after a few more miles of very difficult trail, issued into a larger prairie bottom, at the farther end of which we encamped, in a position rendered strong by

rocks and trees. The lower parts of the mountain were covered with the nut pine. Several Indians appeared on the hill-side, reconnoitring the camp, and were induced to come in; others came in during the afternoon; and in the evening we held a council.

"We explained to the Indians that we were endeavouring to find a passage across the mountains into the country of the whites, whom we were going to see; and told them that we wished them to bring us a guide, to whom we would give presents of scarlet cloth, and other articles, which were shown to them. They looked at the reward we offered, and conferred with each other, but pointed to the snow on the mountain, and drew their hands across their necks, and raised them above their heads, to show the depth; and signified that it was impossible for us to get through. They made signs that we must go to the southward, over a pass through a lower range, which they pointed out; there, they said, at the end of one day's travel, we would find people who lived near a pass in the great mountain; and to that point they engaged to furnish us a guide. They appeared to have a confused idea, from report, of whites who lived on the other side of the mountain; and once, they told us, about two years ago, a party of twelve men like ourselves had ascended their river, and crossed to the other waters. They pointed out to us where they had crossed; but then, they said, it was summer time; but now it would be impossible. I believe that this was a party led by Mr. Chiles, one of the only two men whom I know to have passed through the California mountains from the interior of the Basin—Walker being the other; and both were engaged upwards of twenty days, in the summer time, in getting over. Chiles's destination was the bay of San Francisco, to which he descended by the Stanislaus River; and Walker subsequently informed me that, like myself, descending to the southward on a more eastern line, day after day he was searching for the Buenaventura, thinking that he had found it with every new stream, until, like me, he abandoned all idea of its existence, and, turning abruptly to the right, crossed the great chain.

"The Indians brought in during the evening an abundant supply of pine nuts, which we traded from them. When roasted, their pleasant flavour made them an agreeable addition to our now scanty store of provisions, which were reduced to a very low ebb. Our principal stock was in peas, which it is not necessary to say contain scarcely any nutriment. We had still a little flour left, some coffee, and a quantity of sugar, which I reserved as a defence against starvation.

"The Indians informed us that at certain seasons they have fish in their waters, which we supposed to be salmon-trout; for the remainder of the year they live upon the pine nuts, which form their great winter subsistence—a portion being always at hand, shut up in the natural storehouse of the cones. At present, they were presented to us as a whole people living upon this simple vegetable.

"We took our way," he proceeds, "over a gently rising ground, the dividing

ridge being tolerably low; and travelling easily along a broad trail, in twelve or fourteen miles reached the upper part of the pass, when it began to snow thickly, with very cold weather. The Indians had only the usual scanty covering, and appeared to suffer greatly from the cold. All left us, except our guide. Half hidden by the storm, the mountains looked dreary; and, as night began to approach, the guide showed great reluctance to go forward. I placed him between two rifles, for the way began to be difficult. Travelling a little farther, we struck a ravine, which the Indian said would conduct us to the river; and as the poor fellow suffered greatly, shivering in the snow which fell upon his naked skin, I would not detain him any longer; and he ran off to the mountain, where he said there was a hut near by. He had kept the blue and scarlet cloths I had given him tightly rolled up, preferring rather to endure the cold than to get them wet.

"We had scarcely lighted our fires, when the camp was crowded with nearly naked Indians; some of them were furnished with long nets in addition to bows, and appeared to have been out on the sage hills to hunt rabbits. These nets were perhaps thirty to forty feet long, kept upright in the ground by slight sticks at intervals, and were made from a kind of wild hemp, very much resembling in manufacture those common among the Indians of the Sacramento valley. They came among us without any fear, and scattered themselves about the fires, mainly occupied in gratifying their astonishment. I was struck by the singular appearance of a row of about a dozen, who were sitting on their haunches perched on a log near one of the fires, with their quick sharp eyes following every motion."

At a later period in the month of April, he encountered a tribe which in some respects were superior to those we have described. He had then reached a large stream called the River of the Lake, which in appearance greatly resembles the San Joaquin, being about a hundred yards across, and the principal tributary to the Tulé lakes. "Here," says the captain, "while we were searching for a ford, some Indians appeared on the opposite bank, and, having discovered that we were not Spanish soldiers, showed us the way to a good ford several miles above.

"The Indians of the Sierra make frequent descents upon the settlements west of the Coast Range, which they keep constantly swept of horses; among them are many who are called Christian Indians, being refugees from Spanish missions. Several of these incursions occurred while we were at Helvetia. Occasionally parties of soldiers follow them across the Coast Range, but never enter the Sierra.

"On the opposite side we found some forty or fifty Indians, who had come to meet us from the village below. We made them some small presents, and invited them to accompany us to our encampment, which, after about three miles through fine oak groves, we made on the river. We made a fort, principally on account of our animals. The Indians brought otter skins, and several kinds of fish, and bread

made of acorns, to trade. Among them were several who had come to live among these Indians when the missions were broken up, and who spoke Spanish fluently. They informed us that they were called by the Spaniards *mansitos* (tame), in distinction from the wilder tribes of the mountains. They, however, think themselves very insecure, not knowing at what unforeseen moment the sins of the latter may be visited on them. They are dark-skinned, but handsome and intelligent Indians, and live principally on acorns and the roots of the tulé, of which also their huts are made."

A day or two subsequently, in the vicinity he met with a very remarkable native. He had reached a very pleasant part of the country, and halted with his party for the night, when what our author calls "a Christian Indian" rode into the camp. "He was well dressed, with long spurs, and a *sombrero*, and speaking Spanish fluently. It was an unexpected apparition, and a strange and pleasant sight in this desolate gorge of a mountain—an Indian face, Spanish costume, jingling spurs, and horse equipped after the Spanish manner. He informed me that he belonged to one of the Spanish missions to the south, distant two or three days' ride, and that he had obtained from the priests leave to spend a few days with his relations in the Sierra. Having seen us enter the *pass*, he had come down to visit us. He appeared familiarly acquainted with the country, and gave me definite and clear information in regard to the desert region east of the mountains. I had entered the pass with a strong disposition to vary my route, and to travel directly across towards the Great Salt Lake, in the view of obtaining some acquaintance with the interior of the Great Basin, while pursuing a direct course for the frontier; but his representation, which described it as an arid and barren desert, that had repulsed by its sterility all the attempts of the Indians to penetrate it, determined me for the present to relinquish the plan; and, agreeably to his advice, after crossing the Sierra, continue our intended route along its eastern base to the Spanish trail. By this route, a party of six Indians, who had come from a great river in the eastern part of the desert to trade with his people, had just started on their return. He would himself return the next day to *San Fernando*; and as our roads would be the same for two days, he offered his services to conduct us so far on our way. His offer was gladly accepted."

This Indian not only promised fairly, but acted well. He joined the explorers on the following day, and faithfully performed the task he had consented to undertake. "He appeared to know every nook of the country." By his assistance they advanced without accident or confusion. The latter part of the time he conducted them by a trail, which, from being seldom used, was almost imperceptible. Then, after travelling a few miles, he halted, and, pointing to the hardly visible trail, "*aquí es camino*," said he, "*no se pierde—va siempre*." He pointed out a black *butte* on the

plain at the foot of the mountain, where they would find water to encamp at night; and having given him a present of knives and scarlet cloth, they shook hands and parted. He bore off south, and in a day's ride would arrive at San Fernando, one of several missions in this part of California, where the country is so beautiful that it is considered a paradise, and the name of its principal town (*Puebla de los Angeles*) would make it angelic.

On one occasion the captain had a fearful account given him of the treachery of some of the Indians. On the 24th of April he and his companions were surprised by the sudden appearance in the camp of two Mexicans—a man and a boy. The name of the man was *Andreas Fuentes*; and that of the boy (a handsome lad, 11 years old), *Pablo Hernandez*. They belonged to a party consisting of six persons, the remaining four being the wife of Fuentes, and the father and mother of Pablo, and Santiago Giacome, a resident of New Mexico. With a cavalcade of about 30 horses, they had come out from Puebla de los Angeles, near the coast, under the guidance of Giacome, in advance of the great Caravan, in order to travel more at leisure, and obtain better grass. Having advanced as far into the desert as was judged consistent with their safety, they halted at the *Archilette*, one of the customary camping grounds, about 80 miles from Captain Fremont's encampment, where there is a spring of good water, with sufficient grass; and concluded to await there the arrival of the great Caravan. Several Indians were soon discovered lurking about the camp, who, in a day or two after, came in, and, after behaving in a very friendly manner, took their leave, without awakening any suspicions. Their deportment begat a security which proved fatal. In a few days afterwards, suddenly a party of about 100 Indians appeared in sight, advancing towards the camp. It was too late, or they seemed not to have presence of mind, to take proper measures of safety; and the Indians charged down into their camp, shouting as they advanced, and discharging flights of arrows. Pablo and Fuentes were on horse guard at the time, and mounted, according to the custom of the country. One of the principal objects of the Indians was to get possession of the horses, and part of them immediately surrounded the band; but, in obedience to the shouts of Giacome, Fuentes drove the animals over and through the assailants, in spite of their arrows; and, abandoning the rest to their fate, carried them off at speed across the plain. Knowing that they would be pursued by the Indians, without making any halt except to shift their saddles to other horses, they drove them on for about 60 miles, and this morning left them at a watering-place on the trail, called Agua de Tomaso. Without giving themselves any time for rest, they hurried on, hoping to meet the Spanish Caravan, when they discovered Fremont and his friends, who received them kindly, and promised them such aid as circumstances might put it in their power to give.

The sequel to this affair is well worth adding. The travellers, while with their

new companions, went to a place where some of their horses had been left, when it was discovered that they had been carried off by the same party who had despoiled Fuentes. Upon this two of Fremont's followers, named Carson and Godey, determined to pursue the Indians in order to recover the animals. They accordingly started for that purpose, but the Mexican, in consequence of the failure of his horse was obliged to return, while Carson and the other went forward in pursuance of the resolution they had formed. The result is thus told:—"In the afternoon of the next day, a war-whoop was heard, such as Indians make when returning from a victorious enterprise, and soon Carson and Godey appeared, driving before them a band of horses, recognised by Fuentes to be part of those they had lost. Two bloody scalps, dangling from the end of Godey's gun, announced that they had overtaken the Indians as well as the horses. They informed us, that after Fuentes left them, from the failure of his horse, they continued the pursuit alone, and towards night-fall entered the mountains, into which the trail led. After sunset the moon gave light, and they followed the trail by moonshine until late in the night, when it entered a narrow defile, and was difficult to follow. Afraid of losing it in the darkness of the defile, they tied up their horses, struck no fire, and lay down to sleep in silence and in darkness. Here they lay from midnight till morning. At daylight they resumed the pursuit, and about sunrise discovered the horses; and, immediately dismounting and tying up their own, they crept cautiously to a rising ground which intervened, from the crest of which they perceived the encampment of four lodges close by. They proceeded quietly, and had got within 30 or 40 yards of their object, when a movement among the horses discovered them to the Indians; giving the war-shout, they instantly charged into the camp, regardless of the number which the four lodges would imply. The Indians received them with a flight of arrows shot from their long bows, one of which passed through Godey's shirt collar, barely missing the neck; our men fired their rifles upon a steady aim, and rushed in. Two Indians were stretched on the ground, fatally pierced with bullets; the rest fled, except a lad that was captured. The scalps of the fallen were instantly stripped off; but in the process, one of them, who had two balls through his body, sprung to his feet, the blood streaming from his skinned head, and uttering a hideous howl. An old squaw, possibly his mother, stopped and looked back from the mountain side she was climbing, threatening and lamenting. The frightful spectacle appalled the stout hearts of our men; but they did what humanity required, and quickly terminated the agonies of the gory savage. They were now masters of the camp, which was a pretty little recess in the mountain, with a fine spring, and apparently safe from all invasion. Great preparations had been made to feast a large party, for it was a very proper place for a rendezvous, and for the celebration of such orgies as robbers of the desert would delight in. Several of the best horses

had been killed, skinned, and cut up; for the Indians living in mountains, and only coming into the plains to rob and murder, make no other use of horses than to eat them. Large earthen vessels were on the fire, boiling and stewing the horse beef, and several baskets, containing 50 or 60 pairs of moccasins, indicated the presence, or expectation, of a considerable party. They released the boy, who had given strong evidence of the stoicism, or something else, of the savage character, in commencing his breakfast upon a horse's head as soon as he found he was not to be killed, but only held as a prisoner. Their object accomplished, our men gathered up all the surviving horses, 15 in number, returned upon their trail, and rejoined us at our camp in the afternoon of the same day. They had ridden about 100 miles in the pursuit and return, and all in 30 hours."

We cannot refrain from smiling at the language of the writer when he speaks of his men "doing what humanity required," by knocking a poor wounded savage's brains out; but the justice of the following commentary can hardly be called in question:—"The time, place, object, and numbers considered, this expedition of Carson and Godey may be considered among the boldest and most disinterested which the annals of western adventure, so full of daring deeds, can present. Two men, in a savage desert, pursue day and night an unknown body of Indians into the defiles of an unknown mountain—attack them on sight, without counting numbers—and defeat them in an instant—and for what? To punish the robbers of the desert, and to avenge the wrongs of Mexicans whom they did not know. I repeat: it was Carson and Godey who did this—the former an American, born in the Boonslick county of Missouri; the latter a Frenchman, born in St. Louis—and both trained to western enterprise from early life."

A few days afterwards he met with some of this ferocious tribe. The picture he gives of them is very striking:—

"In the darkness of the night we had made a very bad encampment, our fires being commanded by a rocky bluff within 50 yards; but, notwithstanding, we had the river and small thickets of willows on the other side. Several times during the day the camp was insulted by the Indians; but, peace being our object, I kept simply on the defensive. Some of the Indians were on the bottoms, and others haranguing us from the bluffs; and they were scattered in every direction over the hills. Their language being probably a dialect of the *Utah*, with the aid of signs some of our people could comprehend them very well. They were the same people who had murdered the Mexicans; and towards us their disposition was evidently hostile, nor were we well disposed towards them. They were barefooted, and nearly naked; their hair gathered up into a knot behind; and with his bow, each man carried a quiver with thirty or forty arrows partially drawn out. Besides these, each held in his hand two or three arrows for instant service. Their arrows are

barbed with a very clear translucent stone, a species of opal, nearly as hard as the diamond; and, shot from their long bow, are almost as effective as a gunshot. In these Indians, I was forcibly struck by an expression of countenance resembling that in a beast of prey; and all their actions are those of wild animals. Joined to the restless motion of the eye, there is a want of mind—an absence of thought—and an action wholly by impulse, strongly expressed, and which constantly recalls the similarity.

“A man who appeared to be a chief, with two or three others, forced himself into the camp, bringing with him his arms, in spite of my orders to the contrary. When shown our weapons, he bored his ear with his fingers, and said he could not hear. ‘Why,’ said he, ‘there are none of you.’ Counting the people around the camp, and including in the number a mule which was being shod, he made out 22. ‘So many,’ said he, showing the number, ‘and we—we are a great many;’ and he pointed to the hills and mountains round about. ‘If you have your arms,’ said he, twanging his bow, ‘we have these.’ I had some difficulty in restraining the people, particularly Carson, who felt an insult of this kind as much as if it had been given by a more responsible being. ‘Don’t say that, old man,’ said he; ‘don’t you say that—your life’s in danger’—speaking in good English; and probably the old man was nearer to his end than he will be before he meets it.

“Several animals had been necessarily left behind near the camp last night; and early in the morning, before the Indians made their appearance, several men were sent to bring them in. When I was beginning to be uneasy at their absence, they returned with information that they had been driven off from the trail by Indians; and, having followed the tracks, in a short distance they found the animals cut up and spread out upon bushes. In the evening I gave a fatigued horse to some of the Indians for a feast; and the village which carried him off refused to share with the others, who made loud complaints from the rocks of the partial distribution. Many of these Indians had long sticks, hooked at the end, which they used in hauling out lizards, and other small animals, from their holes. During the day they occasionally roasted and ate lizards at our fires. These belong to the people who are generally known under the name of Diggers; and to these I have more particularly had reference when occasionally speaking of a people whose sole occupation is to procure food sufficient to support existence.”

One of the party was so unfortunate as to fall into the hands of the Indians, who murdered him. The tale is thus related:—“I had been engaged in arranging plants; and, fatigued with the heat of the day, I fell asleep in the afternoon, and did not awake until sundown. Presently Carson came to me, and reported that Tabeau, who early in the day had left his post, without my knowledge, rode back to the camp we had left, in search of a lame mule, and had not returned. While we were

speaking, a smoke rose suddenly from the cotton-wood grove below, which plainly told us what had befallen him; it was raised to inform the surrounding Indians that a blow had been struck, and to tell them to be on their guard. Carson, with several men well mounted, was instantly sent down the river, but returned in the night without tidings of the missing man. They went to the camp we had left, but neither he nor the mule was there. Searching down the river, they found the tracks of the mule, evidently driven along by Indians, whose tracks were on each side of those made by the animal. After going several miles, they came to the mule itself, standing in some bushes, mortally wounded in the side by an arrow, and left to die, that it might be afterwards butchered for food. They also found in another place, as they were hunting about on the ground for Tabeau's tracks, something that looked like a little puddle of blood, but which the darkness prevented them from verifying. With these details they returned to our camp, and their report saddened all our hearts."

On the following day, as soon it was sufficiently light to enable him to see the tracks of the Indians, Fremont, with several of his people, undertook to seek for Tabeau. They went to the spot where the appearance of puddled blood had been seen; and this, they saw at once, had been the place where Tabeau fell and died. Blood upon the leaves, and beaten-down bushes, showed that he had got his wound about twenty paces from where he fell, and that he had struggled for his life. He had probably been shot through the lungs with an arrow. From the place where he lay and bled, it could be seen that he had been dragged to the river bank, and thrown into it. No vestige of what had belonged to him could be found, except a fragment of his horse equipment. Horse, gun, clothes—all became the prey of these Arabs of the New World.

Tabeau had been one of the captain's best men, and his unhappy death spread a gloom over the party. "Men, who have gone through such dangers and sufferings as we had seen," he remarks, "become like brothers, and feel each other's loss. To defend and avenge each other, is the deep feeling of all. We wished to avenge his death; but the condition of our horses, languishing for grass and repose, forbade an expedition into unknown mountains. We knew the tribe who had done the mischief—the same which had been insulting our camp. They knew what they deserved, and had the discretion to show themselves to us no more. The day before they infested our camp; now, not one appeared; nor did we ever afterwards see but one who even belonged to the same tribe, and he at a distance."

These wild men it seems were on the look-out for a caravan which annually journeyed from California to New Mexico, and they were waiting near a place at which the caravan had been accustomed to halt. These stragglers, when they could be engaged, were easily vanquished or put to flight, but they caused Captain Fremont

and his people great uneasiness. "We had," says he, "to move all day in a state of watch, and prepared for combat—scouts and flankers out, a front and rear division of our men, and baggage animals in the centre. At night, camp duty was severe. Those who had toiled all day, had to guard, by turns, the camp and the horses, all night. Frequently one-third of the whole party were on guard at once; and nothing but this vigilance saved us from attack. We were constantly dogged by bands, and even whole tribes of the marauders; and although Tabeau was killed and our camp infested and insulted by some, while swarms of them remained on the hills and mountain sides, there was manifestly a consultation and calculation going on, to decide the question of attacking us."

Having escaped from these barbarians, he soon had to encounter another set, whose company was not very desirable, this was "a band of Utah Indians, headed by a shrewd chief, who had obtained the American or English name of Walker, by which he was well-known. They were all mounted, armed with rifles, and used their rifles well. The chief had a fusee, which he had carried slung, in addition to his rifle. They were journeying slowly towards the Spanish trail, to levy their usual tribute upon the great Californian caravan. Being robbers of a higher order than those of the desert, they conducted their depredations with form, and under the colour of trade and toll for passing through their country. Instead of attacking and killing, they affect to purchase—taking the horses they like, and giving something nominal in return."

To Captain Fremont this Walker conducted himself very civilly. He knew something of him, and his journeyings in 1842, and proposed that they should exchange presents, which was done, Chief Walker gaining for a Mexican blanket a very fine one, which the captain had obtained at Vancouver. He considered that Walker had no bad bargain.

The Indians are dexterous at horse-stealing. They run great risks to possess themselves of the animals of the foreigners who visit them. The practice is said to be something of a novelty. Briant, in his *What I saw in California*, gives a curious statement on this subject from the *Californian Star* of March 28, 1847, which he adds was written by a gentleman who had been a resident of California for a number of years, and who had been a sufferer. It is subjoined:—

"During the Spanish regime, such a thing as a horse-thief was unknown in the country, but as soon as the Mexicans took possession, their characteristic anarchy began to prevail, and the Indians to desert from the missions. The first Indian horse-thief known in this part of the country, was a neophyte of the mission of Santa Clara, George, who flourished about 20 years ago. He absconded from his mission to the river of Stanislaus, of which he was a native. From thence he returned to the settlements, and began to steal horses, which at that time were very

numerous. After pursuing his depredations for some time, he was at last pursued and killed on his return from one of his forages. The mission of Santa Clara has been, from that time to the present day, the greatest nursery for horse-thieves, as the Stanislaus River has been and is their principal rendezvous. I have taken some pains to inquire among some of the most intelligent and respectable of the native inhabitants, as to the probable number of horses that have been stolen between Monterey and San Francisco within the last 20 years, and the result has been that more than 100,000 can be distinctly enumerated, and that the total amount would probably be double that number. Nearly all these horses have been eaten! From the river of Stanislaus, as a central point, the evil has spread to the north and south, and at present extends from the vicinity of the Mickélemes River on the north, to the sources of the St. Joaquin on the south. These Indians inhabit all the western declivity of the great snowy mountains, within these limits, and have become so habituated to living on horseflesh, that it is now with them the principal means of subsistence.

"In past time they have been repeatedly pursued, and many of them killed, and whole villages destroyed, but so far from being deterred, they are continually becoming more bold and daring in their robberies, as horses become scarcer and more carefully guarded. About 20 persons have been killed by them within the knowledge of the writer. Among others, Mr. Lindsay and Mr. Wilson were killed by them not long ago. Only about one month since, they shot and dangerously wounded four persons employed in the farm of Mr. Weber, near the Pueblo of St. Joseph, and at the same time stole the horses of the farm, and those also from the farms of Captain Fisher and Mr. Bernal, in the same vicinity; in all, above 200 head. Within the last 10 days, numerous parties of them have been committing depredations on many of the farms in the jurisdiction of the Contra Costa, and scarcely a night passes but we hear of their having stolen horses from some one. Three days ago, a party of them were met by some young men who had been out catching wild horses on the plains of the St. Joaquin, but as they were mounted on tired animals, they were only able to recapture the stolen horses, but could not overtake the thieves."

No general description will apply to men in a wild state. Misapprehension, caprice, and many circumstances which can hardly be known to civilized life, at times create impressions and produce results, so different from what in other cases have been witnessed, that the beholder is astounded at the seeming inconsistency. In different encounters, ferocity, terror, artfulness, and courage, were by turns conspicuous. Dr. Brooks and his brother wanderers were on one occasion about commencing their dinner, when they heard a rustling noise. They rose to ascertain from what it proceeded, when they saw an Indian slyly approaching, who on find-

ing that he was detected, sent off a shaft, which missed its destination, but inflicted an injury upon the ear of one of the party named Dowling. With a yell the barbarian fled, but falling ere he could again use his bow, his white adversary finished his career with a mattock.

At the same instant the sound of fire-arms was heard, and Brooks, ascending an eminence, perceived a body of mounted Indians rapidly approaching. Apprehensive that the purpose of the new comers was hostile, the whites entrenched themselves in a sheltered dell, resolving to remain there, and repel any attack that might be made. A discordant whoop announced the further advance of some half-hundred Indians, who gave still more disagreeable proof of their vicinity, by discharging a volley of arrows among the pale-skins. The latter, from their sylvan fortress, did considerable execution with their rifles. The savages, appalled, began to retreat, carrying, however, their wounded with them. Brooks had singled out and taken aim at an old chief, who had alighted. Notwithstanding his imminent danger, the veteran with much coolness quietly raised one of his wounded friends, placed him on a horse, and resuming his own animal, seized the bridle of the other, and rode off. Affected by this magnanimity, Brooks would not fire at the old man, who was allowed to carry off his less fortunate countryman.

The vile practice of scalping, so common among the Indians in other parts of America, is far from being unknown here. Man is generally cruel in proportion as he is ignorant. But there are good and bad of every race. It would be a great error to suppose that gentleness and virtue are alien in all cases to the Californian Indian. Dr. Brooks brings before us a very gratifying proof that the red man can at times act the good Samaritan, with as much intelligence and humanity as his pale-faced brethren. A Mr. M'Phail, of the doctor's party, was missing, and great anxiety was felt on his account. His late companions sought for him in every direction. They called on him aloud, but got no better answer than the howl of a hungry wolf might supply. They could not determine in what direction their friend had moved. On the day of his disappearance their efforts were continued till the light failed them, when satisfied they could do no good, they resolved not to proceed further with their search before dawn, and agreed to devote the interval to repose. Alighting from their animals, they flung themselves on the ground, making the saddle-cloths their covering, and the saddles their pillows. Story, one of the party, and a youth named Horry, kept the first watch, while the remainder slept. Their slumber was not of long duration, for Story awakened Mr. Brooks, and directed his attention to several fires which blazed on the hill-sides at a short distance. After they had reconnoitred the fires which they supposed to have been kindled in an Indian camp, the other sleepers were aroused. A brief consultation was held, the result of which was, that it

was settled they should attack the Indians, and endeavour to regain the horses of which they had been plundered. They rode towards the fires, and when in the immediate vicinity of their adversaries alighted and secured their horses, entrusting them to the care of Horry, and enjoining him, should his friends be compelled to fly from the Indians, to shout loudly, so that they might more easily escape.

They went forward, warily, preceded by Bradshaw and Malcolm, who acted as scouts to the little party. Their plan of attack was, on approaching the hostile camp to send a volley into it, and then reversing their position, drive back their steeds, and withdraw. They were nearing the camp fires, when their progress was momentarily arrested by the discharge of a rifle, succeeded by a shrill whistle. Upon reaching two of their friends, Malcolm and Bradshaw, they found the latter, who had been shot, supported by his companion, and at first, concluding that this had been done by the Indians, were preparing to fire into their camp, when the rough salutation of "D— your eyes! who goes there?" stayed the movement. They hesitated till Mr. Brooks returned to them, and allayed their apprehension by stating that Bradshaw had received a wound in his leg from the accidental discharge of his rifle, and that he had bandaged the wounded limb with a handkerchief. Immediately afterwards, an outcry, succeeded by moaning, was heard from Horry, but the groans only reached the ear of Mr. Brooks. No time for thought was allowed, for at that moment they beheld the horses which they had left tearing past them, driven on by six Indians on horseback. They levelled their pieces at the marauders, who with discordant screams disappeared, while the steeds were regained by their right owners,

Upon returning with their horses to the place where they had stationed Horry, they found that the poor boy had been butchered by the Indians. He was weltering in his blood, and his head and face barbarously mutilated. The savages, after destroying the unhappy lad, had borne off his scalp,

The sequel of Mr. M'Phail's story furnishes a much more agreeable view of the Indian character, and justifies the reflections we have hazarded above as to their capacity for the exercise of rational benevolence. He had almost been given up, when his friends had the pleasure of seeing him brought back by two Indians. He had separated from his party to let his horse drink at a little rivulet, and having done so looked for his companions; but not seeing them, after waiting a short time, came to the conclusion that they must have gone forward, and attempted to follow them, but got into the wrong trail. He soon discovered his error, but knew not how to correct it. A dreary wilderness of hills or frowning ravines was spread before him. He climbed some of the loftiest eminences in the hope of being enabled thence to descry his lost friends, or some objects which might guide him in his progress, but in both instances was disappointed.

Alone in a strange country, not knowing where to seek for food or for shelter, the situation of the wanderer was sufficiently forlorn, but he soon found that it was not so bad but it might be rendered considerably worse. He had approached a stream, which he attempted to cross, when his horse stumbled, and both were carried away by a rapid torrent. After swimming some distance, both man and horse with difficulty reached the opposite bank, and in this painful struggle for life, Mr. M'Phail had the misfortune to lose that which seemed almost indispensable to its maintenance and defence, his rifle.

But this was not his last misfortune. Faint and hungry he wrapped himself up in his cloak, and using his saddle for a pillow, he threw himself on the ground when the night had closed in upon him, and exhausted by fatigue and vexation fell asleep. "When he awoke in the morning," Dr. Brooks proceeds, "he found that his horse, which he had tethered to a neighbouring stunted tree, had strayed away, and although he followed his trail for some time, he was eventually obliged to give up the search. The remainder of this and the following day he wandered about at random, amidst a wild and sterile country, furrowed with tremendous chasms several hundred feet in depth, and the edge of which it was necessary to skirt for miles ere a crossing-place could be found. During this time poor M'Phail fared very hardly. He saw numerous herds of elk, but they bounded past unharmed: he had no rifle. He tried in vain to find some edible roots, and was at length reduced to the necessity of chewing grass and the pith of alder trees. Throughout this period his sufferings were excessive; but as the time passed and brought no relief, he experienced a sickness and nausea of the most gnawing and horrible description. He became so weak that he could hardly stand. At length at sunset, on the third day of his wanderings, he laid himself down upon a spot of grass, and fell into a kind of stupor, in the full belief that he would only wake in the agonies of death. It was then that he was discovered by the two Indians who brought him to the camp. They behaved with great humanity towards him, allowing him, however, to eat, first of all, only a few morsels of the dried meat which they had with them, that he might not harm himself by over-eating, after such a lengthened fast. As his stomach by degrees recovered its tone, they permitted him to take further nutriment; and after encamping with them on that and the following night, he felt sufficiently recovered to proceed on his journey to the camp. His kind benefactors understood a few words of Spanish, and he was enabled to explain to them the part of the country he wished to reach. They undertook to guide him thither—told him they would arrive there after having slept once, and by slow marches made their way to Bear Valley, which they reached on the evening of the second day."

What may be called the Mexican-Californian is pleasantly described by Mr. Bryant. He is the link which connects Mexicans with the Indians, and the intermixture of

blood with the Indian and negro races is very perceptible. In him the aboriginal is blended with the descendant of the European. Mr. Bryant seems to take a very impartial view of the subject. He says:—

“The men, as a general fact, are well made, with pleasing, sprightly countenances, and possessing much grace and ease of manners, and vivacity of conversation. But hitherto they have had but little knowledge of the world and of events, beyond what they have heard through Mexico, and derived from the supercargoes of merchant-ships and whalemens touching upon the coast. There are no public schools in the country—at least I never heard of one. There are but few books. General Vallejo has a library with many valuable books, and this is the only one I saw, although there are others; but they are rare, and confined to a few families.

“The men are almost constantly on horseback, and as horsemen excel any I have seen in other parts of the world. From the nature of their pursuits and amusements, they have brought horsemanship to a perfection challenging admiration and exciting astonishment. They are trained to the horse and the use of the lasso (*riata*, as it is here called) from their infancy. The first act of a child, when he is able to stand alone, is to throw his toy lasso around the neck of a kitten; his next feat is performed on the dog; his next upon a goat or calf; and so on, until he mounts the horse, and demonstrates his skill upon horses and cattle. The crowning feat of dexterity with the *riata*, and of horsemanship, combined with daring courage, is the lassoing of the grisly bear. The feat is performed frequently upon this large and ferocious animal, but it is sometimes fatal to the performer and his horse. Well drilled, with experienced military leaders, such as would inspire them with confidence in their skill and prowess, the Californians ought to be the finest cavalry in the world. The Californian saddle is, I venture to assert, the best that has been invented, for the horse and the rider. Seated in one of these, it is scarcely possible to be unseated by any ordinary casualty. The bridle-bit is clumsily made, but so constructed that the horse is compelled to obey the rider upon the slightest intimation. The spurs are of immense size, but they answer to an experienced horseman the double purpose of exciting the horse, and of maintaining the rider in his seat under difficult circumstances.

“For the pleasures of the table they care but little. With his horse and trappings, his sarape and blanket, a piece of beef and a *tortilla*, the Californian is content, so far as his personal comforts are concerned. But he is ardent in his pursuit of amusement and pleasure, and these consist chiefly in the fandango, the game of monte, horse-racing, and bull and bear-baiting. They gamble freely and desperately, but pay their losses with the most strict punctuality, at any and every sacrifice, and manifest but little concern about them. They are obedient to their magistrates; and in all disputed cases decided by them, acquiesce without uttering a

word of complaint. They have been accused of treachery and insincerity. Whatever may have been the grounds for these accusations in particular instances, I know not ; but, judging from my own observation and experience, they are as free from these qualities as our own people."

The statements of Messrs. Brooks and Briant, though different, are not to be considered at variance. Each speaks of scenes and of facts which he saw, or which came to his knowledge. Diversity of circumstances presented those they encountered in a different point of view.

Mr. Briant's reflections seem well-founded. It is very natural for adventurers who sustain an unlooked-for attack from the Indians to complain of treachery. But they do not in all cases know of what wrong the assailants have to complain from strangers who went before ; what outrage to revenge. Man in civilised society is very deficient in virtue ; the perfidy of the savage finds some excuse in his ignorance ; and it is more than probable that in describing the Californian Indians to be as free from "treachery and insincerity as our own people," the writer did not pay them a compliment of which, if thoroughly understood, they would have great reason to be proud. At all events they have some very good qualities, as proved in many cases, to set against those that degrade them in the eyes of Europeans.

CHAPTER XXIV.

UNSETTLED STATE OF THINGS.

A NOTICE of any country, to which at the moment of its being written thousands of strangers are resorting, under perfectly novel circumstances, must necessarily be in some degree incomplete; at least it cannot be dissembled that the present state of things is one that will be likely to undergo important changes in the course of a year or two. To the next meeting of Congress attention will be especially directed. The great question on which that body will have to deliberate, has been fully explained in preceding pages. How it will be disposed of it would be hazardous to guess. Parties are said to be so equally divided, that an accident might give the triumph to either faction. Were it left open for another year the consequences would in all probability be very serious. Ambition in the Gold Region has already been awakened and tempted to snatch at power; it may be emboldened by delay to calculate the chances for and against claiming independence, which some distinguished public men in the United States have declared California will not fail to demand, and indeed ought to possess. Mexico, now aware of the value and importance of the territory she has lost, and which, strange to say, seems to have been very imperfectly understood before, will be likely to favour such a movement, in the hope of regaining the prize, or of revenging herself on those who wrested it from her.

With a laudable anxiety to conciliate, Mr. Polk, so early as March, 1847, through General Kearney, hastened to announce the principles on which this country would thenceforward be governed. "The undersigned," said General Kearney, in a proclamation issued on the first of that month, "has instructions from the President to respect and protect the religious institutions of California, and to see that the religious rights of the people are in the amplest manner preserved to them, the constitution of the United States allowing every man to worship his Creator in such a manner as his own conscience may dictate to him.

"The undersigned is also instructed to protect the persons and property of the quiet and peaceable inhabitants of the country against all or any of their enemies,

whether from abroad or at home; and when he now assures the Californians that it will be his duty and his pleasure to comply with those instructions, he calls upon them all to exert themselves in preserving order and tranquillity, in promoting harmony and concord, and in maintaining the authority and efficiency of the laws.

"It is the wish and design of the United States to provide for California, with the least possible delay, a free government, similar to those in her other territories; and the people will soon be called upon to exercise their rights as freemen, in electing their own representatives, to make such laws as may be deemed best for their interest and welfare. But until this can be done, the laws now in existence, and not in conflict with the United States, will be continued until changed by competent authority; and those persons who hold office will continue in the same for the present, provided they swear to support that constitution, and to faithfully perform their duty."

Having formally absolved the inhabitants of California from their allegiance to Mexico, the document proceeded to declare that thenceforward they were to be considered as citizens of the United States. Those who remained peaceable were promised protection in their rights, but such as took up arms or in any other way attempted to disturb the new order of things, were to be dealt with accordingly.

The beneficent disposition of the United States Government was further declared in the following paragraphs:—"When Mexico forced a war upon the United States, time did not permit the latter to invite the Californians as friends to join her standard, but compelled her to take possession of the country, to prevent any European power from seizing upon it, and in doing so, some excesses and unauthorized acts were no doubt committed by persons employed in the service of the United States, by which a few of the inhabitants have met with a loss of property; such losses will be duly investigated, and those entitled to remuneration will receive it.

"California has for many years suffered greatly from domestic troubles; civil wars have been the poisoned fountains which have sent forth trouble and pestilence over her beautiful land. Now those fountains are dried up; the star-spangled banner floats over California, and as long as the sun shall shine upon her, so long will it continue to float there, over the natives of the land, as well as others who have found a home in her bosom; and under it agriculture must improve, and the arts and sciences flourish, as seed in a rich and fertile soil.

"The Americans and Californians are now but one people; let us cherish one wish, one hope, and let that be for the peace and quiet of our country. Let us as a band of brothers, unite and emulate each other in our exertions to benefit and improve this our beautiful, and which soon must be our happy and prosperous home."

The more agreeable the prospect thus opened to the Californians, the more painful was the disappointment felt, in consequence of the lengthened and indefinite postponement of the promised boon. We have shown that the Lynch-law remedy resorted to in certain cases, could never be long tolerated by civilized men, and such a population as it was found assembled at San Francisco, required all the temperate guidance that could be derived from a well organized government, while its increasing numbers, and the announcement of approaching multitudes in various directions, suggested the necessity not only of present regulation, but of prospective arrangement. In July 1849 alone, no less than 3,614 persons arrived, of whom about 3,000 were Americans, to say nothing of the influx by the overland route, and it was known that the main portion of the best class of emigrants were yet on their way from New York and the New England States *via* Cape Horn.

It may be considered a remarkable fact, that at this late period the accounts received in the United States did not prove that there had been any great exaggerations in the earlier reports of the mineral wealth of California. A letter from the son of a person of distinction in the United States, and published as a communication on which full dependence might be placed, contained the following statement:—

“ While I was walking towards the Post-office yesterday I saw people kneeling down in the streets, employing their leisure time, scraping gold out of the dust with their jack-knives. Twenty or thirty men and boys, who had no other employment, were each getting as much gold out of the very dust of the streets (not gold which had been accidentally scattered there, but the true gold of the soil) in the course of an hour or two as a man could earn at home in a day.”

The letter from which these passages are quoted is evidently that of a young gentleman, gay and sanguine. Looking at any opinion he might offer, it would not be improper to suppose that he was in some measure carried away by that lively expectation which had moved so many men of maturer years and sober calculations; but it will be observed he speaks simply of what he saw, and he saw boys picking up gold in the street, out of the common soil, and thus acquiring in an hour or two as much as a man at a common business could earn in a day! Such things stated on credible authority, could not fail to add to the excitement previously kindled, and from that day the numbers were multiplied who coveted to visit this singularly-favoured spot.

The contemplated railroad or canal, or other communication between the Atlantic and Pacific Oceans, so long desired, led to a serious correspondence between the governments of Great Britain and the United States. When the Spanish colonies declared themselves independent of Spain, Guatemala was the principal state of central America. After a few years it was seen that the new republics, though too

powerful to be reduced by Spain, wanted strength to preserve their own dependencies, and Nicaragua, Costarica, and Salvador separated from Guatemala, and claimed to be severally independent. In the vicinity of Nicaragua, what is called the Mosquito territory is situate, and this had for centuries sustained itself, and escaped being subjected to Spain. While the lands around it were overrun by Europeans, the Mosquito country, from some cause or other, was spared the common lot. One of its chiefs having been educated in Europe was placed on the throne in 1845. He had received the name of George Augustus Frederick, and his sovereignty was formally recognised by Colonel Fancourt, the British agent. Relations of the most amicable nature were established between England and this native prince, who considered himself and his dominions under the protection of England.

When the growing importance of California had made a speedy passage to it more than ever desirable, and when a company had been formed or projected to effect this, among the various schemes which found favour in the eyes of the speculators of the day, one line was traced out which passed over land belonging to the Mosquito monarch, but which, without reference to his rights, was claimed by the state of Nicaragua. A company formed in New York treated for the right so claimed, and considered itself to be legally possessed of it. The company in question did not propose to make the desired communication, the highway for all nations, between the two oceans. They did not profess to have funds adequate to such an undertaking, but claiming the right to it to pass in that direction, they were anxious that the pretensions of the Mosquito king should be set aside that they might transfer, or sell their privilege to other speculators, who were prepared to make the grand experiment.

These parties appealed to the government of the United States, and the president gave the subject his most serious attention. Some of the American papers took it up very warmly. They treated the Mosquito king as a wretched savage who could hardly be brought to endure the thralldom of trowsers, and whose claim was altogether ridiculous. English interference in the case was not more courteously dealt with. It was insinuated that England wishing for increased dominion in the neighbourhood of Panama, had prevailed upon the Indian chief to set up a claim which was entitled to no respect, and indeed which had never been thought of before. Without offering any opinion on the question at issue, this charge against England can easily be shown to be erroneous. *Postlewayth's Dictionary* was published in 1776. At that period the United States of North America were asserting their independence, but had no concern with the king of Mosquito's territory, or with the Spanish possessions, and in that laborious work the following article appeared:—"Moskito Country is situated in North America, between 85° and 88° of west longitude, and between 13° and 15° of north latitude having

the North Sea on the north and east; Nicaragua on the south; and Honduras on the west; and, indeed, the Spaniards esteem it a part of the principality of Honduras, though they have no colonies in the Moskito country. When the Spaniards first invaded this part of Mexico, they massacred the greatest part of the natives, which gave those that escaped into the inaccessible part of the country an insuperable aversion to them; and they have always appeared ready to join any Europeans that come upon their coasts, against the Spaniards, and particularly the English, who frequently come hither, and the Moskitomen being excellent marksmen, the English employ them in striking the maratree fish, &c., and many of the Moskito Indians come to Jamaica, and sail with the English in their voyages.

Remarks.—These people are so situate between morasses and inaccessible mountains, and a coast full of rocks and shoals, that no attempts against them by the Spaniards, whom they mortally hate, could ever succeed. Nevertheless they are a mild inoffensive people, of great morality and virtue, and will never trust a man who has once deceived them. They have so great a veneration towards the English, that they have spontaneously put themselves and their lands under the protection and dominion of the crown of England. This was first done when the duke of Albemarle was governor of Jamaica, and the king of the Moskitoes received a commission from his grace, under the seal of that island; since which time, they have not only been steady in their alliance with the English, but warm in their affections, and very useful to them on many occasions. When their king dies, the next male heir goes to Jamaica, to certify that he is next in blood, and receives a commission in form from the governor of Jamaica to be king of the Moskitoes, till which he is not acknowledged as such by his countrymen. So fond are these people of every thing that is English, that the common people are proud of every christian or surname given them by our seamen, who honour their chief men with the titles of some of our nobility."

In *Rees* we find it stated, that after the Mosquito Indians had put themselves under the protection of England as above stated, it became the practice when a king died for the next male heir to proceed to the island of Jamaica to receive his commission, and till this was done he was not acknowledged by his subjects as their rightful sovereign. The article goes on:—"some time ago offers were made by England for settling colonies on the Mosquito shore. The English evacuated this country in the years 1787 and 1788, after having had possession of it for about eighty years. Since the English have left it, and the Spaniards have recovered it, the king of the Mosquito shore is absolute; for, retaining their aversion to the Spaniards, they will not allow the king of Spain to be their master, though they were satisfied with considering the king of England in this relation."

CHAPTER XXV.

ADMINISTRATION OF JUSTICE.

It required no extraordinary sagacity to foresee, that in the absence of a regular and well arranged government, great disorders were likely to arise. It was to be expected that eager and sordid adventurers from different countries anxious to become suddenly rich, would not be nice in the means they might adopt with a view to the accomplishment of their object, and that discord and violence must follow; but serious disturbances occurred in San Francisco, springing from a source which had been overlooked or not imagined; the outrageous conduct of certain citizens of the United States, banded together as it at first was believed for amusement, or "sprees," as they were termed, but ending in robbery and ferocious assaults, hardly stopping short of murder.

The numerous arrivals of ships from the United States and from Europe, bringing every description of merchandize, caused the market in the month of July, to be glutted with all articles that are commonly in demand. Wooden houses, indeed, kept up their price. These, as compared with the tents which had been generally used, were a luxury, and with champagne, choice dried fruits, preserved meats, and soups, were still in demand, but generally speaking, the enormous supply had crushed and overpowered the demand. Sites on which houses and warehouses could be built, fetched high prices, and building progressed most rapidly. Houses sprang up almost as speedily as if the industrious slave of *Aladdin's* famed lamp had been in attendance, to give his labour to the new occupants of California.

Still the news was most propitious to the hopes of those who resorted thither in quest of gold. All accounts made it appear that the quantity to be found was incalculably great; its existence over a vast tract of country, extending for several hundreds of miles, was vouched for by travellers of credibility. All agreed in assigning to the country vast, if not inexhaustible, wealth. Several very large specimens were about this period brought to San Francisco from the mines. One large lump, weighing 14½ lb. troy, was purchased for \$3,560 on account of the house

of Barron, Forbes, and Co., of Mexico, and was said to be intended as a present to Her Majesty Queen Victoria. It was an irregular-shaped slab, one side of which was all pure gold, and the other side quartz, weighing about one-third of the whole, streaked with lines of fine gold: its length was $6\frac{3}{4}$ inches, breadth $5\frac{3}{4}$ inches. Another specimen was disposed of by a raffle for \$1,500: it weighed 7lb. 10oz troy of pure gold. Its intrinsic value was less; but all the large lumps sold high as curiosities. Both these lumps were dug in the "Stanislaus diggings," on the San Joaquin.

In this state of things it might have been expected that the liberal feeling expressed by some of the North Americans, at an earlier period, which rejoiced in the belief that there was gold enough for all, would have experienced no abatement, and that harmony would have prevailed; but from some cause or other dissatisfaction was now manifested, which had not been witnessed before. Certain parties claiming to be American citizens, but whose feelings were probably anything but in unison with those of their countrymen generally, looked with an evil eye on the foreigners who had found their way to the gold region. Their ire seemed especially provoked by the Chilians and Mexicans. They objected to parties working together on a joint account. Such a course had been pursued to guard against depredation, that while some members of the co-partnership worked at the diggings, others might be at leisure to protect what had already been gained. The arrangement was said to have excited the jealousy of the Americans, as an infringement upon individual rights, and as injurious to individual exertion, and in consequence the Americans expelled many Chilians and some Mexicans. About 600 Chilians, chiefly working men, left for their native country, and many more prepared to follow. The governor, General Riley, and General Smith, addressed their countrymen upon the illiberality of their conduct to foreigners, as being contrary to the spirit of the American Constitution, and it was hoped that the interference of those respectable authorities would check further violence.

This hope was sadly disappointed. The disturbers mentioned as *Rowdies*, had by this time changed themselves into *hounds*, or been succeeded by a more reckless crew, who assumed to degrade that appellation. At first it was not supposed that they had any particular object in view, and as no outrages were committed by its members beyond an occasional street brawl, but little notice was taken of them. For the most part they were only known as a set of idlers, who paraded the streets in fantastic dresses, and amused themselves by attempting ridiculous pranks. As the season advanced they became more formidable, and many defenceless emigrants complained of having been cruelly treated by the *hounds*, who now thought it expedient to establish what they termed their head quarters, in a large tent situate near the city hotel. To this tent, which they named Tammany Hall, the *hounds*

resorted, issuing from it occasionally to affront and plunder their neighbours. In one of these predatory expeditions, a man who accompanied them named Beatty, but was spoken of as not being regularly initiated into their society, lost his life. "The hounds," says the editor of the *Alta California*, a newspaper written in the English language, which at this time was published, "indignant that a foreigner should dare to defend by force of arms his property and the honour of his household, assembled the day after the occurrence and confiscated and sold to the highest bidder, the tents and effects of the man who had done no more than protect himself against their assault."

After this, their boldness and the impunity they seemed to enjoy, encouraged other to join them, and their numbers greatly increased. To some of them it occurred that as higher objects engaged their attention than those to which the views of the *Rowdies* had formerly been confined, or those which the *hounds* had avowed, a more business-like and dignified title was desirable, and they now called themselves "regulators." On Sunday, the 15th of July, they appeared in the streets, accompanied by a drum, a fife, and a banner, and marched through the town without any regard to the day or the feelings of the more sober part of the community.

But this was not all, the day was more fearfully desecrated than it would have been by riotous amusements and simple foolery. They disgraced themselves by intolerable cruelty. "The treatment," says one writing from the spot, "met with at their hands by one unfortunate Chilian will mark the characters of the members of this precious body more indelibly than anything I could say against them. This poor man they found in bed in his father's tent, pounced upon him, and, unarmed and defenceless as he was, pummelled him unmercifully. He slipped from their hands and got outside the tent. They overtook him crawling away, beat him again, and, to finish him, two or more of them held him by the hands, while another of the brotherhood fired the contents of a pistol into his body. The ball penetrated at his back, near the root of the spine, and after going through, or traversing round his body, was taken out near the navel." Even after this they continued their cruelty, as if nothing short of death would satisfy their animosity.

Great indignation was excited by such outrageous conduct, and on the following day, Monday the 16th of July, a meeting was convened and held at a place called Portsmouth Square. Here the proceedings were very remarkable. A president, two vice-presidents, and a secretary were appointed; and this done, a Mr. Brannan addressed the assembly, and described the recent proceedings of the disturbers known as *The Hounds*, which he considered had now taken such a shape, that prompt and energetic measures were necessary to check the growing evil. He moved that a subscription list should be opened at the Parker House

to relieve the sufferers from the riots, assaults, and robbery of the preceding night.

This being approved it was proposed that a body of men should be organized to assist the constables, which was ordered and arranged on the spot. A Mr. Spofford was named chief constable. In accepting the office he addressed the meeting with great animation, and concluded with an adaptation of the solemn language used by the celebrated Lord Mansfield on another occasion—"When I forget my duty may God forget me." No Californian satirist attended to supply the pungent commentary breathed in the former case by Jack Wilkes. The meeting adjourned for a few hours, which seem to have been occupied in enrolling the names of those who were friendly to its object. In the afternoon its deliberations were resumed at the same place. The assembly was then formed into companies, to each of which a captain was assigned.

In the mean time proper exertions were made to secure the *Hounds*, and by sunset seventeen of them were in custody. As there was no prison in the place, the prisoners were put on board the United States ship *Warren*. Roberts the reputed leader of the gang had been taken on board a schooner bound to Stockton.

Two judges were then nominated to be associated with the alcalde before whom the offenders were to be tried. A Mr. Merrill and a Mr. Ward accepted these appointments. A district attorney and an associate counsel to act with him were next chosen.

It was considered to the last degree important that no time should be lost in bringing the offenders to justice, and on Tuesday the 17th, a grand jury of twenty-four citizens met, and were not long in finding a true bill against certain parties charged with being concerned in the late outrages, whose names were as follows:—Samuel Roberts, William Mickle, Phil. A. Higgins, David Gale, James H. Harrison, Augustus St. John, Lewis Burns, George Batchelor, Peter Gardener, J. F. Banker, Thomas R. Orander, George Childs, Robert Starkie, James Robinson, John Kanaka, Alexander M'Guire, James Leatherby, John Curley, John Powers, and John Sykes.

The rioters seem to have been of a very low class. They were described by the *Times* correspondent to be, "as gallows-looking rascals as I ever saw at Newgate. The fellows looked like dirty, bloated butcher-boys, dressed up for a holiday-making, except one, the captain of the band, who looked more like a tiger than any man I ever saw."

Four general charges were preferred: these were headed "Conspiracy," "Riot," "Robbery," and "Assault, with intent to kill." The first charge imputed to the parties, that they had combined to rob the peaceable inhabitants of their property, to assault, beat, shoot at, and wound their persons; to commit riot, rape, and

murder, and divers other crimes. The second described them to have riotously assembled, armed with deadly weapons, with the intent to commit murder, robbery, and other enormities, and to have demolished certain tents inhabited by one Domingo Alegria and other persons, where they "did wound with deadly weapons Rinaldo Alegria, Ignacio Alegria, and other persons." The third imputed to the prisoners that they had put a number of persons, whose names were stated, in bodily fear of death, or of violence, and had carried away from some of the inhabitants enumerated 6,300 dollars, or thereabouts, in coin, and 1,400 dollars, or thereabouts, in gold dust, together with fire-arms, jewellery, one pipe of wine, one of rum, personal effects and wearing apparel to a large amount.

The court adjourned till Thursday, on which day it again assembled at nine in the morning. The evidence of a Captain Andrews, whose presence was required elsewhere by his public duties, was taken before the proceedings were regularly opened. He had seen on the Sunday a body of the *Hounds* or *Regulators* in motion, who reported that they were "going to whip the damned Chileno out of the town." He saw them plundering and destroying, heard that Sam was their captain, but did not see the prisoner Samuel Roberts with them.

The court was then formally opened with a speech of some length, delivered by F. J. Lippitt, Esq., a jury having been previously empannelled. In his address Mr. Lippitt dwelt on the several crimes alleged to have been committed by the prisoners, and the course which, in accordance with English law, it would be proper to pursue. Of the newly chosen judges he said—"Two of the members of this court have been appointed by the people in a public meeting. The object was that the community might share the great responsibility which would otherwise fall upon the alcalde; and I trust and believe that they will not be found recreant to their duty, but that they will carry out the wishes of the public, and see justice done, and the integrity of this community vindicated.

The tribunal thus formed presented a singular scene. Two judges having been appointed to assist the alcalde formed the court. But the first witness called was the alcalde, Thaddeus M. Leavenforth himself. He accordingly appeared in the witness-box, or stand, as it was there called. It will be seen that this produced some confusion. Mr. Leavenforth did not understand that becoming a witness he abdicated for the time being his authority as a judge. He was not too tenderly treated by the counsel for the prosecution, and thus provoked he attempted to act at the same moment as witness and judge. The examination proceeded thus, as reported in the *Alta California* :—

Thaddeus M. Leavenforth, *sworn*.—I am alcalde of this district—have been for ten months.

Ques. by Pros.—Do you know of the existence of a society called *Hounds*?

Counsel for Def.—I object. I wish to know the object of the question.

Counsel for Pros.—To prove their existence.

Witness.—By common fame. I have seen two or more persons together whom I knew to be called *hounds*.

Ques. by Pros.—Do you, in your official capacity, know of any outrages committed by the *hounds*?

Counsel for Def.—I object—it is irrelevant.

The Witness.—I insist upon my right to tell my story in my own words!

Counsel for Pros.—I demand of the court that the witness shall answer my question. [Here several gentlemen of the bar jumped to their feet, and some confusion occurred; the alcalde proceeded to tell his story “in his own words.”]

Counsel for Pros.—I call upon the court to commit the alcalde!

The witness.—Sit down, sir, and preserve order, or I will instantly have you arrested!

The Court.—Of course, if the alcalde comes on to the stand as a witness, he must abide by the rules applicable to all witnesses, and cannot, for the time, be considered a part of “the Court;” but I would suggest to the counsel for the prosecution that it will probably be best to allow him to “tell his story in his own words.”

Counsel for Def.—I wish my exception noted to the whole principle of this hearsay evidence.

Witness proceeded.—There is nothing before me to that effect. Some individuals have said to me that they were *hounds*—perhaps in jest or earnest. I thought they stated the truth. I have heard of gross acts of injustice committed by the *hounds*. I consider the citizens remiss in not reporting them to me for judicial action. Some person complained to me relative to a tent, but I do not know who complained. I think he was a *hound*, and disapproved of the proceedings.

The counsel for the defendant here interfered, and said if such latitude were allowed as had been taken, he should insist on the evidence being stricken off the record, and to this the court assented. The alcalde, his examination being continued, thus added:—“On the night in question (June 21) I heard a man had been shot. I went to see him. From him I learned nearly all I know. I have no personal knowledge of the matter. I went to the tent next morning; it was deserted; goods laying about; two persons were handling the goods; I did not know these men were *hounds*; I did not know of these goods being sold; I said I would send a cart for the goods, but they were taken away and sold before I did so.”

Thomas Kettleman, the next witness, said—“I know of several tents which were torn down. The one torn down near Tammany Hall I saw. I sat in my door opposite nearly two hours. I saw the mob rolling off tierces of brandy. The prisoner was present several times; I did not see him touch anything; I saw Andrew, who

was sheriff last winter, and John Curley there. One of the crowd got up and sold the liquor off at ten dollars a barrel. I went and saw the alcalde, and asked him if people were to be robbed in this way in broad day-light. He said he knew all about it, and they would be brought to account for it. I have seen prisoner going about as one of the *hounds*, and always thought him and John Curley the principal ones. The two Lees brothers, Shorty and the tall one, Switcher, George Batchelder, John Powers, and William Mickle, were all *hounds*. I have heard that the association was organised on paper. I do not know that they are. It is about three weeks ago that this property was carried off. I do not know who owned it. I have seen the *hounds* three times before; I saw the same party tear down a tent at the Point. I know it was the same party. They were calling out for the *hounds* as they went along. I have heard of the *hounds* since October or November last. I have known the prisoner since New Year's Day. I thought it was a political organization. Latterly I have thought it was an organization to rob Chilians and commit other outrages.

Jules Rousson, a Frenchman, deposed that he kept the U. S. Restaurant. On Sunday a party of men entered with a drum, and took away what they wanted without pay. About two months before the same persons came and supped, and went away without paying. About one month after that they repeated their visit, took refreshment, and gave an order on the alcalde for payment, who refused to honour it. "I do not know," said the witness, "that the alcalde employed these men, but the same men who whipped the man by order of this alcalde came and eat and gave the order. My door," he continued, "has been broken in twice, and when the pannels fell in the party run away." He destroyed the order on the alcalde when he found that officer would not pay it.

Domingo Cruz (Chileno) gave evidence to acts of great violence. His testimony was as follows:—I have a tent on Clark's Point. On Sunday night last, about half-past nine, about twenty persons arrived at my tent. There were then twenty Chilenos there. The twenty Americans presented pistols to the breasts of the twenty Chilenos. They asked for liquor. Three men went behind the counter and commenced breaking the bottles and drinking. I did not see the prisoner among them. I did not hear any one call out "Sam." They went out but soon returned in greater numbers, with a fife and drum; I did not then see the prisoners. The prisoner might have been there, and I not see him. After staying about half an hour, and breaking the bottles and drinking, they went to the tents of other Chilenos, which they destroyed, firing shots, and making much noise. Captain "George" knocked a Chileno down with a broken sword at the door of my tent. They said they had an order from the alcalde to destroy all the tents of the Chilenos. Several of them loaded their pistols before they left my tent. The shots were fired

shortly after. In a little time they commenced bringing goods to my tent, throwing them down at the door, and saying "these are all mine." In the morning (Monday) a small man whom I saw the night before came and carried away some things, and said he would send a cart for the others. I would know the man if I should see him again. I did not hear any name given to the party. I heard them call out often for Captain "George." They came toward the plaza, and I saw them no more. They came to my tent once before; but they paid then. I did not see the prisoner at all during the evening. I was a friend of Captain George at Valparaiso; but I still felt a great deal of fear. I am not a friend of the prisoner, and did not exchange signs with him when I entered the court."

Domingo Alegria (Chileno) gave the following important evidence:—I was in my tent with an Englishman when some persons arrived and commenced firing. My children were sleeping inside. The Englishman and myself were reclining. I heard one of the children cry out, "Do not kill me, I am already wounded." I escaped from the tent, and ran down to the water. Both young men were wounded, one in the body the other in the hand. At first I did not hear music, but when I returned I heard a fife and drum. They destroyed the tent and carried away all the property, including \$2,000 in coin, and a considerable quantity of jewellery, valued at about \$1,500. I was frightened. I heard "kill the Chilenos" cried out.

Many witnesses were called, who deposed to various outrages openly committed by the *hounds*. The wounded men were brought into court. One of them had been shot quite through the body, and a medical witness declared that in ninety-nine cases out of a hundred such a wound must prove mortal.

Other witnesses spoke to facts in support of the charge, and the case for the prosecution being closed, the court adjourned till the following Friday. On that day further evidence was admitted against the accused, and the court was then addressed by Mr. Myron Norton for the defence. He stated the prisoner to be guilty of some of the acts charged, but of others he was innocent, and he warned the jury against being carried away by the unnatural state of excitement which existed at the time these proceedings were instituted.

Mr. Leavenforth, the *alcalde*, whom we have already seen as judge and witness for the prosecution, was now called for the defence. He deposed as follows:—A sailor of the ship *Daniel Watson* was whipped by my order in the Plaza about two weeks ago. Sentence of court was executed by a volunteer named Andrews, assisted by one Anderson. He further stated the answers he had given, assuring parties of protection who complained of suffering from disturbers of the public peace.

A number of other witnesses were called and examined at considerable length, but they stated nothing sufficiently characteristic of the state of society in California

to be interesting to the general reader. On the Saturday, the jury having been charged by the court on the preceding day, came into court with a sealed verdict, which being opened was read as follows:—"We, the undersigned jurors in the case pending, the case of the people *v.* Samuel Roberts, do hereby render the following verdict:—Guilty of conspiracy, riot, robbery, assault with intent to kill; and that the jury *unanimously* and earnestly recommend that the prisoner be placed at once in a man-of-war now lying in the harbour of San Francisco, and there closely confined, *in irons*, and as soon as circumstances will allow to be returned to some port in the United States, never to return under penalty of death."

The trials of the other prisoners were then proceeded with. Nothing new came out. Six of the number were found guilty, and the rest acquitted. The sentences passed on those convicted were as follows:—Samuel Roberts sentenced to ten years hard labour in the Penitentiary where the governor of California may direct. Theodore R. Saunders sentenced to a like punishment. John Curley sentenced to pay a fine of \$1,000, and to one year hard labour. David Gale sentenced to a fine of \$500, and six months' imprisonment, with hard labour. Augustus St. John sentenced to pay a fine of \$250 and bond for \$5,000 to keep the peace for twelve months. William Mickle and John F. Barker were sentenced to pay a fine of \$250 and bond of \$2,500.

These punishments, looking at the frightful disorders they were intended to correct, do not seem to have been too severe. It however ought to be stated that there were some of the San Francisco public who held a different opinion; who were of opinion that true liberty could only be enjoyed in the absence of all law.

At this period the arrivals became more numerous than they had previously been. Gold was found in many places where it had not at first been sought for, and, says the *Alta California*, "the best feeling prevails, except in the matter of foreign encroachment; for our people are united in the determination to expel the vagrants of other nations from the mines, and the movement is a very general one, we are informed." In the same article it was stated that "Provisions are plenty in the mines, and our informant states, without doubt correctly, that goods may be obtained in Sacramento city at San Francisco prices. Business in the former place is brisk, and improvement rapidly going on. Town property, which three months ago was sold for four hundred, now readily commands from ten to *fifteen thousand dollars!*"

In the month of July the number of emigrants which reached San Francisco was 3,565 males, 49 females, in all 3,614, of which about 3,000 were from the United States. News was received at the beginning of August, of the approach of the advance companies of the Rocky mountain Emigration. Some had already arrived, and a letter from Sacramento city, dated July 24th, gave the following intelligence:—"Emigrants from Missouri, over the mountains, are now arriving daily.

The first party of *packers* has been here five or six days, and reports four waggons in Pleasant valley, about 100 miles above, and five or six thousand waggons on the way, and not far behind."

It has been attempted to submit a perfectly genuine representation of the state of things in California, drawn from various authentic sources, up to an advanced period of the year 1849. We cannot say it is complete, for the drama is still in progress, and scenes of great importance in which new actors will appear, may be witnessed, even before the commencement of another year.

In the summer, before the outrages which have been described had occurred, those who sought gold at the diggings, were believed to have been generally successful. Some cases of complete failure were announced, but against these were to be placed others which had been eminently successful. According to the correspondent of the *Times*, the average yield was generally supposed to reach an ounce per day, and as provisions and clothing were at that time cheaper at San Francisco than in England, there was nothing to prevent those who preserved their health and escaped plunder from leaving with a handsome balance. The number then at the mines appeared to be 25,000, and consequently the monthly produce ought to be between £2,000,000 and £3,000,000 sterling. "Making allowance for exaggeration, the writer added, and also for the probability that this rate of produce can only be obtained during a few months of the year, it is sufficiently large to lead to the supposition that distinct effects will be observed from it when the season closes, and the miners return to San Francisco with their hoarded gains. It must be borne in mind also that the present number of workers will be largely augmented every month."

What is here stated, combined with the news in the *Alta California*, will sufficiently remind the reader of those changes which have been hinted at as probable. It is worthy of remark, that apart from the risk and labour of gold-seeking, as elsewhere described, the Californian adventurers have no slight evils to encounter after they have been successful in their search. Having been so fortunate as to find the gold, they are not a little perplexed how to keep it. They cannot carry a large quantity about with them, and they dare not separate themselves from it. The nature of the treasure generates doubts and fears in minds not naturally suspicious. According to the accounts which reached Dr. Brooks, life and property were alike insecure. It was confidently whispered and almost universally believed, that when it was once understood a man had amassed a considerable amount of the precious metal, those who were more indolent or less fortunate, were constantly on the look-out, dogging him wherever he went, in the hope of finding an opportunity for securely plundering him by first depriving him of life. Comparatively few persons were known to have died a natural death, but many were mysteriously

missing, and the number of those it is significantly remarked, "whose own friends even had not thought it worth while to go in search of them was very large. In every case the man's stock of gold was not to be found in his tent: still there was nothing surprising in this, as every one made a point in carrying his gold about him, no matter how heavy it might happen to be." There is something dismally suggestive in these few words. A man is missing and his friends do not think it worth while to search for him! Are they so absorbed by their passion for gold-finding, that they cannot suffer their labours to be interrupted by the fate of an unfortunate friend, or have they been the means of putting him away?

But the gold-seeker has not only to be on his guard against others, he ought to suspect himself; conscious that he has that to lose which may easily be rendered valuable to another, he is often ill at ease with little or no cause. He suspects those who are most trustworthy, and renders himself wretched and culpable by his excessive anxiety.

Dr. Brooks furnishes us with a pregnant instance of this. We cannot impute to him any unworthy meanness, any disposition to accuse or think ill of others on slight grounds, but the position in which he found himself, and various concurring circumstances caused him to take up an unfavourable impression against one or two of his companions, which he could not easily dismiss.

An active, clever gentleman of the United States, named Bradley, and a Spaniard who was called Don Luis, were joint labourers with the Doctor and others at the diggings. After some time, when they had accumulated a considerable quantity of the gold dust, it was resolved to place it in the care of Captain Sutter, and Bradley was sent on that important mission. At a later period the question was debated, what they had better do in order to secure more treasure, when Bradley and Don Luis offered to convey it to San Francisco or Monterey, and there give it into the care of some respectable merchant. It was finally resolved that it should be sent off in the charge of Bradley and the Spaniard; but when it was proposed by one of Brooks's friends that they should be attended with a guard the greater part of the journey; this was objected to by Bradley and the other as wholly unnecessary.

Their opposition caused some misgivings, and then it was recollected that though it had been reported the gold formerly sent away had been safely lodged with Captain Sutter, the receipt of that gentleman for the amount had not been produced. The Doctor, Mr. M'Phail, and another conferred on this matter, and by arrangement made among themselves on the following day, Bradley was asked for the document. His answer was certainly not very satisfactory. He had taken a receipt from Captain Sutter, he said, but had accidentally consumed it lighting a cigar. The mistrust previously excited was not put to rest by this revelation, and it was determined that one of the Doctor's friends, named Malcolm, should

THE UNITED STATES.

accompany the treasure then about to be removed. Bradley and Don Luis probably saw in this proposal clear evidence that their probity was deemed questionable, and the looks they exchanged on the occasion told the observers that the step decided upon did not meet with their approbation, and guilty confusion, as they supposed, clouded their countenances.

The gold was sent off, the greater portion of it in the care of Malcolm. They had left the Doctor and their other comrades, when, late one evening, Bradley and Don Luis returned, and the former announced that "the gold was all lost." The hearers were incredulous. They were told that Bradley, Don Luis, and Malcolm, advancing with their charge, had been waylaid by some Indians, one of whom threw his lasso over Malcolm's head. Don Luis shot the savage, and the assailants were put to flight; but Malcolm was found insensible from the injuries he had received, and with difficulty they prevailed on a party of miners who then came up, to convey him on a litter to their encampment.

Such a statement was most unwelcome, and Dr. Brooks and those who had remained with him, though they had no means of proving it false, could hardly believe what they heard. The great bulk of the gold had been carried by Malcolm in his saddle bags, and his horse having been seized by the Indians, the treasure was lost with the animal. Dreadful ideas occurred to some of the party. Dr. Brooks entertained the horrid thought that the gold had not only been unfairly appropriated, but that the bearer of it had been murdered.

The gold was certainly lost; but it was afterwards clearly proved, not in the way suspected. Bradley was "a good man and true," and the property reported by him to have been carried to Captain Sutter, was found in that gentleman's possession. There certainly were circumstances which render very excusable the apprehensions confessed by his brother adventurers; and the situation in which they found themselves, as already remarked, was one in which men naturally feel suspicion easily awakened, but in which it is especially necessary to guard against the imaginings of fear being mistaken for facts proved beyond all doubt.

This is unquestionably one of the great obstacles to continuous prosperity which the Californian gold-hunter has to dread. His first success soon becomes an inconvenience. When he has obtained by unceasing toil a considerable quantity of the precious metal, the difficulty of placing it in secure concealment is a very serious consideration. In the happiest, best regulated societies, there are always some worthless characters who prefer snatching by fraud or violence what may belong to a neighbour, to honestly submitting to the drudgery, or the humiliation, as they may be pleased to consider it, of working for themselves; and it cannot be supposed that the gold region, which holds out a prize so tempting to the daring and the desperate, will be free from such pests. What, then, is the considerate man to

do? Having before him what seems a certain opportunity of making his fortune, must he forbear to continue his profitable labour, when he has done little more than paid expenses, or shall he boldly go on, at the imminent risk of losing whatever he may have already acquired? This, it will be seen, is a momentous question; and adopting the former determination, a man cannot easily be assured that he is certainly right; but preferring the latter, in many instances, the hapless gold-seeker has found that he was unquestionably wrong.

The doubts which have been thrown on this subject generally, may, to some readers, appear unnecessarily hazarded in this work. It could not be avoided with due regard to truth. In the United States, where it will easily be conceived great anxiety must exist to know the true situation of things in California, the accounts put forth from time to time serve to bewilder rather than to inform. Of this, singular and amusing evidence is furnished by a gigantic *half-yearly* paper, published at New York, in the month of July, 1849, and which, while treating the subject playfully in the main, mingles with powerful satire, some statements which cannot but be viewed as embodying the truth. The writer opens with the following remarks:—"Notwithstanding that so much has been said, sung, written, dreamt, and *imagined* about California for the last twelve months or so, we still know very little concerning it that any conscientious man would be willing to swear to; and we are beginning to have a faint suspicion that the less we know of it, the better it will be for the reputation of the 'Diggings;' for there is a truthful-looking rumour travelling about on the wings of the wind, which suggests that the famous gold mountain is merely in labour with a mouse, and that nine-tenths of the excitement about it is attributable to the exertions of dealers in Californian *notions*. In fact, any one who gives the matter a few grains of consideration, can see the *puff* and the *lie* sticking right out of the majority of the blazing letters that appear in the daily press. And we have no doubt that many of these originate with traders in 'India-Rubber,' 'Bowie Knives,' 'Pistols,' 'Passages round the Horn,' and so forth; for there is a certain *smack of the shop* about them, that can scarcely be mistaken by any one who knows a 'hawk from a heronshaw.' And then we have had *lecturers* direct from the mines—(God save the mark!)—who had never been out of the smoke of New York; and one of whose lectures, by the way, was written to the order of a manufacturer of *Patent Gold-Washers*, by a distinguished Penny-a-liner, who, getting blue on the reward of his labours, let 'the murder out,' and boasted that he had imagined three-fourths of the *facts*, and stolen the remainder out of an old book of travels."

Making liberal allowance for banter and jest, enough may be seen in the above, "*sticking right out*," to prove that all is not jest. Should it be suggested that it was the object of the paragraph to create a belief, that what had been reported of the mineral wealth of the region, to which attention has been so powerfully attracted, was almost

without foundation, that will be completely answered by the few lines immediately following what we have quoted:—"We believe, however, that there are great stores of gold in California; but we want people who go to seek it to go with their eyes open; for otherwise their chances seem better for making fools of themselves than for making fortunes."

He then goes on to describe whimsically, but not with unmeaning burlesque, the difficulties with which the explorers of the newly-acquired territory will have to grapple:—"The chance of getting to the mines after one sets fairly out, appears to be somewhat like drawing a prize in a small lottery. If you go by the Rocky Mountains, and escape being buried alive in the snow, like a number of the Fremonters, the probability is that you have to cast lots for your life, and either eat, or are eaten by, your companions. If you go by sea, you are either wrecked at the Horn, or cast ashore on some desolate island, to get off again the best way you can. And if you go by the way of the Isthmus, you find the end of your rope at Panama; for there you are stuck for want of vessels to carry you farther; and must either come back again—which involves an expense that but few of the gold-hunters are prepared for—or remain there in a climate that is enough to roast a salamander, and at the mercy of untold myriads of the most unmerciful scorpions, musquitoes, and galley-nippers, that flourish upon the pages of natural history. But in the face of all this the fortune-hunters rush ahead as if there was a macadamised road all the way; and then most of them are so indifferently prepared, that even if the macadamised road we speak of were in existence, an average of one in three of them would never get to the end of the journey."

The picture which he gives of the general excitement produced will hardly be accused of stretching too largely the licence of a caricaturist. "However, we feel that we are 'casting our pearls before swine;' for people will *leap* before they *look* in spite of us. Nay, it would seem as if the very dangers of the journey enhanced the pleasures of encountering it; for never was a spot so difficult to be arrived at as this same California, and never were there so many people struggling to arrive at one spot before, since the planting of the Garden of Eden. No country is idle—and no age is free from the mania, from the first blush of puberty upwards! From all parts the cry is, 'Here they go, and there they go;' and in some instances we have read of old couples with one leg each in the grave, having put their other legs forward to join the adventurers—thus sacrificing all the repose and comfort due to their declining years, and encountering obstacles that would make Hercules shake in his shoe leather, for the prospects of dying rich, and being laid to rest in a silver coffin.

"Indeed, from the ease with which travellers take the matter, especially in country places, one might suppose they had an idea that San Francisco was situated somewhere in the neighbourhood of the next town. They provide themselves with felt

hats and bowie-knives—which are the two great staples—nod a hasty farewell to their friends—and off they go. They rarely take into consideration the length of eighteen thousand miles—or anything else but the mountain of gold at the other end. And so long as they are single young fellows all this is but of little consequence, as they are about as well in one place as another. But the case is altered when whole families take the road in rickety waggons; which is so usual an occurrence, that in all sections of the country there are cottages to let—the late occupants children and all—having ‘pack’d up their tatters’ and gone *the way of all flesh*—which is now the common appellation for a trip to the mines.

“The distance from Chagres to Panama is about eighty-five miles; but, (the letter-writers being our authority,) it is worse to travel than eighty-five miles bare-foot through a brier hedge. The first sixty miles, per the Chagres river, and terminating in a town called Gorgona, are in fact, a perfect gauntlet of horrors, and occupy from three days to a week, as the case may be, all of which time travellers are blistered by the sun, or chilled by the night damps—devoured by swarms of insects, compared to which musquitoes and centipedes are as ‘mild as moonbeams,’ and half frightened out of their wits by horrible monsters—the like of which were never seen out of that semi-infernal locality; and the last twenty-five miles, from Gorgona to Panama, is described as an abominable ankle-deep swamp, intersected here and there with patches of pointed gravel, that prick like thorns, and provided with an atmosphere that would be too much, for any length of time, for the lungs of ‘the toad that lived upon the noisome vapours of a dungeon.’ ”

There is however, “a sunny side to everything,” and the writer proceeds to show that the opposite of all this has been stated in some quarters. Of the way by Cape Horn, and the expense likely to be incurred, he reports—“Notwithstanding the many disasters to the California vessels that have been recorded, we take it that the passage round the Horn is the *surest*, as it is the cheapest one to the mines. The vessel and crew, however, must be of first class quality, or the risk is immense; for the voyage is represented as being perilous in the extreme; and we lament to say that many of the craft that ventured upon it from New York and adjacent ports were, by all accounts, about as miserable affairs as could be well stuck together with wood and iron; while the crew, and men, especially the captains, were chosen through the influence of speculators, and not on the strength of their own proper experience and capacity. Hence there is much apprehension abroad for the safety of the passengers, and a conviction that at least a third of them will never reach the proposed end of their journey. If a good boat and crew are not comeatable, the Isthmus route is to be preferred; but travellers by it should have plenty of money, and know how to take care of it; and also a stock of patience that might compare favourably with Job’s. Nine-tenths of the flattering statements made about it by the Chagres shipping

agents, are to be set down as unmitigated falsehoods; and the other tenth should be received doubtfully; for those same agents are altogether irresponsible, and have already committed crimes enough in their avocations to entitle them to vestments of tar and feathers. For instance, they freely advertise, and assure all who go to them for advice, that three hundred dollars is sufficient for the entire journey to California, *via* the Isthmus; that the route from Chagres to Panama is very cheap, very pleasant, consumes very little time; and that no delay is ever experienced at Panama—there being always crowds of vessels at that place bound for San Francisco, who, in consequence of the opposition, take passengers for almost anything they can get—sometimes as low as twenty-five dollars—and from that say, up to fifty! But the truth is—as scores of the *bitten* have testified—that a thousand dollars is required for the journey, which is nearer to the mark than three hundred—and may fall below it—that the route from Chagres to Panama is tedious in time, exorbitant in charges, and a foretaste of purgatory in all its details; and that the vessels which touch at Panama are so few and far between, that the sight of a sail in the horizon makes a holiday; 'which of course enables the captains of the occasional California vessels that arrive to extort the most outrageous prices for passages; and sooth to say they take advantage of it to the fullest extent. In some cases as high as six hundred dollars, over and above the advertised prices of the trip, have been given and taken; and there are instances in which eight hundred have been offered and refused. The sad result of this villainous mismanagement is, that there were by the last accounts nearly two thousand emigrants at Panama—the vast majority of whom were without means, either to proceed or return, and many of them were reduced to the necessity of selling off their wardrobes, in order to procure means for subsistence."

In the foregoing, many will recognise some biting truths. What follows is a simple matter of fact. "In fact we are still all in a fog respecting California; for the letter-writers so contradict each other, that their information amounts to nothing reliably; and whatever information the government may possess on the subject it keeps to itself, for reasons perhaps to be hereafter developed; so that should readers be curious about the gold mines, they must *remain curious* for some time to come, for the knowledge they desire is not to be had unless in a shape so questionable, that one scarcely knows whether to believe it or not. And such will be the state of affairs for probably twelve months longer."

The day may be very distant when all who write on this subject will agree; but many facts of importance are already established beyond all doubt. That gold is to be found, and in extraordinary abundance, is no longer questionable. The progress of discovery is thus shown in the *Pacific Weekly News*, a newspaper published at San Francisco on the 1st of September in an article of which the following is an abstract.

"The Sacramento still yields a good dividend of \$10 to \$15 a-day. The new method of turning the river and of working in its drained channel has not always repaid the effort, yet it has succeeded sufficiently to make it popular. It requires a union of from 20 to 60 persons to build the dam. The Feather River, where the finest gold has been found, is yet a favourite stream among the diggers. It yields to good workers the average of an ounce per man. About 3,000 persons are now engaged there. The Ayuba River is said to be the surest place for making money, and the Indian trade is also brisk there. A friend assured us he had sold common scarlet blankets at from four to ten ounces each. Of the three forks of the Rio de los Americanos the north has now a majority of miners. The gold is of a light lemon colour, and when assayed is found to possess a greater quantity of silver than that of the neighbouring streams. Many have left the middle fork in parties for the mountain sources of the precious metal, but these parties have not been as successful as was expected. The Oregon men seem to be the luckiest diggers on these branches. The old-fashioned rocker is the only and the simplest way yet invented to separate the dirt from the ore. In future years quicksilver will doubtless be used, but gold is yet too plentiful to need the aid of amalgams.

"Upon the Sacramento and its tributaries the number of persons engaged is about 15,000. It is estimated that their gains for the year ending next January will be \$20,000,000. Upon the San Joaquin and its tributaries the number is 20,000, and their gains are also estimated as likely to be \$20,000,000. The Tuolumne and the Mercedes rivers have been merely skimmed over, yet with brilliant success, and many have turned their steps towards the ravines of the Calavers, where a fortunate miner earned \$20,000 in two weeks. It is reported that new and valuable gold mines have been discovered upon the Turkee river, just the other side of the Sierra Nevada, and that several parties from the northern forks were on their way thither. It is stated that from \$500 to \$1,000 have been dug per day. If this report is true the real diggings are just being discovered."

CHAPTER XXVI.

STATISTICS.

THE vast territory and large population which now constitute the great North American republic, and the recent addition of new states, render it advisable to give a general statistical view of the progress of a nation, whose extraordinary capabilities are being rapidly developed by the enterprising, industrious, and patriotic spirit which characterizes its people. The republic now consists of thirty-two states, districts, and territories.

ORIGIN OF THE NAMES OF THE SEVERAL STATES.

Maine was so called as early as 1623, from Maine in France, of which Henrietta Maria, queen of England, was at that time proprietor.

New Hampshire was the name given to the territory conveyed by the Plymouth Company to Captain John Mason, by patent, November 7th, 1629, with reference to the patentee, who was Governor of Portsmouth, Hampshire, England.

Vermont was so called by the inhabitants in their Declaration of Independence, January 16th, 1777, from the French *verd mont*, the green mountain.

Massachusetts was so called from Massachusetts Bay, and that from the Massachusetts tribe of Indians, in the neighbourhood of Boston. The tribe is thought to have derived its name from the Blue Hills of Milton. "I had learnt," says Roger Williams, "that Massachusetts was so called from the Blue Hills."

Rhode Island was so called in 1604, in reference to the island of Rhodes, in the Mediterranean.

Connecticut was so called from the Indian name of its principal river. Connecticut is a Moheakannew word, signifying "long river."

New York was so called in 1664, in honour of the Duke of York and Albany, to whom this territory was granted by the king of England.

New Jersey was so called in 1664, from the island of Jersey, on the coast of

France, the residence of the family of Sir George Carteret, to whom this territory was granted.

Pennsylvania was so called in 1691, after William Penn.

Delaware was so called in 1703, from Delaware Bay, on which it lies, and which received its name from Lord De la War, who died in this bay.

Maryland was so called in honour of Henrietta Maria, queen of Charles I., in his patent to Lord Baltimore, June 30, 1632.

Virginia was so called in 1584, after Elizabeth, the virgin queen of England.

Carolina was so called by the French, in 1564, in honour of King Charles IX. of France.

Georgia was so called in 1732 in honour of King George II.

Alabama was so called in 1814, from its principal river.

Mississippi was so called in 1800, from its western boundary; Mississippi is said to denote the whole river, *i.e.* the river formed by the union of many.

Louisiana was so called in honour of Louis XIV. of France.

Tennessee was so called in 1796, from its principal river. The word Tennessee is said to signify a curved spoon.

Kentucky was so called in 1782, from its principal river.

Illinois was so called in 1809, from its principal river. The word is said to signify the river of men.

Indiana was so called in 1809, from the American Indians.

Ohio was so called in 1802, from its southern boundary.

Missouri was so called in 1821, from its principal river.

Michigan was so called in 1805, from the lake on its border.

Arkansas was so called in 1812, from its principal river.

Florida was so called by Juan Ponce de Leon in 1572, because it was discovered on Easter Sunday, in Spanish, "Pascua Florida."

Columbia was so called in reference to Columbus.

Wisconsin was so called from its principal river.

Iowa was so called from its principal river.

Oregon is so called from its principal river.

During the seventeenth century the following British settlements were planted on the coast of North America:—Virginia, A.D. 1607; New York, which was contended for and alternately occupied by the English and Dutch, from 1614 to 1674; Massachusetts, 1620; New Hampshire, 1623; New Jersey, 1624; Delaware, 1627; Maine, 1630; Georgia, 1632; Maryland, 1633; Connecticut, 1635; Rhode Island, 1636; North Carolina, 1650; South Carolina, 1670; and Pennsylvania, in 1682. Some of these settlements owed their origin to enterprising individuals, others to associations. Maryland was founded by Lord Baltimore,

to whom the tract of country was granted in 1632. Georgia was granted to a corporation of twenty-one persons. New England was colonized by a congregation of English Puritans. Carolina was vested in a proprietary body, and in 1662 the Earl of Clarendon and seven others obtained from Charles II. a grant of all lands lying between 31° and 36° N. lat. Delaware was originally settled by an association of Swedes and Finns, termed the "West-India Company," who were subdued by the Dutch from New York, in 1655, and the latter by the English in 1664. In 1680—82, the whole country was transferred to William Penn by the Duke of York, on whom a large portion of the coast of North America had been bestowed by his brother, Charles II.

In 1776, the thirteen colonies declared their independence, and constituted themselves the United States of America, to which several other states have since been added; their territory now extends from the frontiers of Canada and New Brunswick to those of Mexico, between the parallels of 45° and 25° N., and from the Atlantic to the Pacific.

PHYSICAL ASPECT.—Generally speaking, the United States territories consist of extensive natural forests, interspersed with open and naked plains, termed prairies, which lie chiefly on the west side of the Alleghanies; the whole country being well watered, and presenting considerable varieties of soil and climate.

LENGTH OF PRINCIPAL RIVERS.

	Miles.		Miles.		Miles.
Susquehanna	300	Savannah	600	Ohio	1,350
Delaware	324	Cumberland	600	Columbia	1,500
Hudson	410	Alabama	650	Arkansas	2,100
Connecticut	550	St. Lawrence	770	Mississippi	3,100
Potomac		Tennessee	1,100	Missouri	4,400

The following shows how far some of the smaller rivers are navigable for sloops, &c.:—

	Miles.		Miles.		Miles.
Savannah	17	Kennebeck	40	Red River	135
Merrimack	18	Connecticut	50	Hudson	166
Cape Fear	33	Alabama	60	Tennessee	250
Penobscot	35	Delaware	90	Ohio	950

HEIGHT OF PRINCIPAL MOUNTAINS.

	Feet.		Feet.		Feet.
Monadnock, N.H. . .	3,250	Saddleback, Mass. . .	4,000	Moose Hillock, N.H.	4,636
Ascutney, Vt. . .	3,300	Camel's Hump, Vt. . .	4,188	Mount Washington,	
Catskill, N.Y. . .	3,800	Mansfield, Vt. . .	4,280	N.H. . .	6,230
Otter Peak, Va. . .	3,955				

THE CLIMATE of the United States is, of course, influenced by the degree of distance from the equator, but it is much colder in North America than in the same latitude in Europe. In New York the cold of winter is intense, and the

heat of summer scarcely endurable. The difference of temperature in several places is as follows :—

	Mean heat.	Greatest heat.	Greatest cold.
	° ' "	° ' "	° ' "
Brunswick, Me.	41 7	98 5	30 below 0
Cambridge, Mass.	48 6	101 0	17 " 0
Philadelphia, Pa.	53 4	—	—
Cincinnati, Ohio	54 7	97 0	11 " 0
St. Louis, Misso.	56 15	101 0	8 " 0
Williamsburgh, Va.	60 8	98 0	5 above 0
Charleston, S.C.	—	101 0	17 " 0

The inconstancy and variety of the climate of England is far exceeded by that of the United States.

METEOROLOGICAL TABLE FOR NEW YORK, N. Y.

SUMMARY OF METEOROLOGICAL OBSERVATIONS made at the Blomingsdale Asylum for the Insane, for the Year 1847. By Pliny Earle, M.D., Resident Physician. Lat. 40° 48' 35" N., Long. 74° 3' 50" W.

Elevation of Barometer above high water-mark, 165 feet.

1847.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
<i>Barometer.</i>	inch.	inch.	inch.	inch.	inch.	inch.	inch.	inch.	inch.	inch.	inch.	inch.	
Greatest height	30.70	30.55	30.62	30.65	30.40	30.40	30.47	30.37	30.85	30.78	30.78	30.70	
Least height	29.20	29.20	28.95	29.57	29.70	29.60	29.93	29.83	29.84	29.54	29.82	29.68	
Average	30.20	30.17	30.15	30.15	30.12	30.10	30.19	30.18	30.12	30.24	30.24	30.23	
<i>Thermometer.</i>													
Highest range	60	50	59	82	85	93	93	86	83	67	71	64	
Lowest range . .	11	11	21	22	36	51	56	54	46	29	12	12	
Average	32.07	31.65	36.56	48.32	58.67	67.41	74.80	71.19	63.29	52.09	47.31	38.48	
Clear days	10	5	7	13	11	9	12	8	9	9	8	4	105
Pleasant days . .	5	4	7	8	7	10	9	11	8	14	6	6	96
Cloudy days . . .	8	10	10	6	8	5	6	8	7	5	12	11	96
Rain fell, days . .	6	3	7	3	5	6	4	4	6	3	4	6	57
Snow fell, days . .	1	6	..	..	..	..	..	..	..	..	..	1	8
Foggy days . . . .	..	..	..	..	..	..	..	..	..	..	..	3	3
Inches of rain . .	2.58	2.85	3.70	1.10	1.90	5.30	2.74	3.34	6.31	3.03	2.92	3.74	39.51
Inches of snow . .	8	19.5	2	..	..	..	..	..	..	..	..	2	31.5
<i>Days of</i>													
N. wind.	1	..	3	2	..	1	2	..	1	2	1	2	15
N.E. "	2	8	3	2	13	2	5	5	8	2	1	4	55
E. " . . . . .	..	3	..	..	3	..	..	1	1	3	..	2	13
S.E. "	2	1	4	5	3	8	4	6	5	2	3	3	46
S. "	1	..	..	..	..	..	1	..	..	..	..	..	2
S.W. "	2	6	1	9	3	4	10	3	3	3	7	5	56
W. "	7	2	4	..	1	5	..	2	4	4	3	4	36
N.W. "	10	6	10	6	2	5	1	2	6	7	8	5	68
Variable	6	2	4	5	6	5	7	6	2	6	4	4	57
Calm . . . . .	..	..	2	1	..	..	1	6	..	2	3	2	17

PROGRESS OF POPULATION.—In 1749, the whole white population of the North American colonies, now the United States, was estimated at 1,046,000. The number in each colony was estimated as follows, viz. :—

THE UNITED STATES.

757

	Population.		Population.
New Hampshire ..	30,000	Pennsylvania and Delaware ..	250,000
Massachusetts Bay ..	220,000	Maryland.. ..	85,000
Rhode Island ..	36,000	Virginia ..	85,000
Connecticut ..	100,000	North Carolina ..	45,000
New York ..	100,000	South Carolina ..	30,000
Jersies ..	60,000	Georgia ..	6,000

Since the year 1790, the progress has been

Years.	Population.	Years.	Population.
1790	3,929,828	1820	9,638,181
1800	5,305,925	1830	12,856,407
1810	7,289,314	1840	17,069,453

The different states, their area, and population at decennial periods, are shown by the subjoined table :—

States and Territories.	Extent in Square Miles.	Population.					
		1790.	1800.	1810.	1820.	1830.	1840.
Maine ..	32,000	96,540	151,719	228,705	298,335	399,437	501,793
N. Hampshire ..	9,280	141,885	183,858	214,460	244,161	269,328	284,574
Massachusetts ..	7,800	378,787	422,375	472,040	523,287	610,408	737,699
Rhode Island ..	1,360	68,825	69,122	76,931	83,959	97,199	108,830
Vermont ..	10,212	85,539	154,465	277,895	235,764	286,657	291,948
Connecticut ..	4,674	237,946	251,002	261,942	273,248	297,675	309,978
New York ..	46,000	340,120	586,058	959,049	1,372,812	1,919,132	2,428,921
New Jersey ..	6,900	184,139	211,149	245,562	277,575	320,823	373,306
Delaware ..	2,068	59,094	64,273	76,672	72,749	76,748	78,085
Pennsylvania ..	43,950	434,373	602,548	810,091	1,049,449	1,348,233	1,724,033
Maryland ..	10,800	319,728	349,692	380,546	407,350	447,040	470,019
Virginia ..	64,000	747,620	886,149	974,622	1,065,366	1,211,405	1,239,797
N. Carolina ..	43,800	393,951	478,103	555,500	638,829	737,987	753,419
S. Carolina ..	30,080	249,073	345,591	415,115	502,741	581,185	594,398
Georgia ..	58,200	82,548	162,686	252,433	340,989	516,823	691,392
Kentucky ..	39,000	73,677	220,959	406,511	564,317	687,917	779,828
Tennessee ..	40,000	—	105,602	261,727	422,613	681,904	829,210
Ohio ..	39,200	—	—	230,760	581,434	935,884	1,519,467
Louisiana ..	48,220	—	—	20,845	153,407	215,739	352,411
Indiana ..	36,250	—	5,641	24,520	147,178	843,031	685,866
Mississippi ..	45,350	—	8,850	40,352	75,448	136,621	375,651
Illinois ..	59,000	—	—	12,282	55,211	157,445	476,183
Alabama ..	50,800	—	—	—	127,901	309,527	590,756
Missouri ..	60,300	—	—	—	66,586	140,455	383,702
Michigan ..	54,000	—	—	4,762	8,896	31,639	212,267
Arkansas ..	121,000	—	—	—	14,246	30,388	97,574
Florida ..	45,090	—	—	—	—	34,730	54,477
N. W. Territory ..	—	—	43,365	—	—	—	—
Orleans ..	—	—	—	76,555	—	—	—
W. Territories ..	—	35,691	—	—	—	—	—
Columbia ..	100	—	14,093	24,023	33,039	39,834	43,712
Iowa ..	200,000	—	—	—	—	—	—
Wisconsin ..	100,000	—	—	—	—	—	—
Texas* ..	—	—	—	—	—	—	—
California*	—	—	—	—	—	—	—
Total	1,309,234	3,929,326	5,319,762	7,239,904	9,637,999		

* No return.

The following shows the population of the United States, according to the last census in 1840 :—

States.	Whites.	Free Coloured.	Total Free.	Slaves.	Total Population.
1. New York	2,378,890	50,027	2,428,917	4	2,428,921
2. Pennsylvania	1,676,115	47,854	1,723,969	64	1,724,033
3. Ohio	1,502,122	17,342	1,519,464	3	1,519,467
4. Virginia	740,968	49,842	790,810	448,987	1,239,797
5. Tennessee	640,627	5,524	646,151	183,059	829,210
6. Kentucky	590,253	7,317	597,570	182,258	779,828
7. North Carolina	484,870	22,732	507,602	245,817	753,419
8. Massachusetts	729,030	8,669	737,699	0	737,699
9. Georgia	407,695	2,753	410,448	280,944	691,392
10. Indiana	678,702	7,165	685,863	3	685,866
11. South Carolina	259,084	8,276	267,360	327,038	594,398
12. Alabama	335,185	2,039	337,224	253,532	590,756
13. Maine	500,438	1,355	501,793	0	501,793
14. Illinois	472,254	3,598	475,852	331	476,183
15. Maryland	318,204	62,078	380,282	89,737	470,019
16. Missouri	323,888	1,574	325,462	58,240	383,702
17. Mississippi	179,074	1,366	180,440	195,211	375,651
18. New Jersey	351,588	21,044	372,632	674	373,306
19. Louisiana	158,457	25,502	183,959	168,452	352,411
20. Connecticut	301,856	8,105	309,961	17	309,978
21. Vermont	291,218	730	291,948	0	291,948
22. New Hampshire	284,036	537	284,573	1	284,574
23. Michigan	211,560	707	212,267	0	212,267
24. Rhode Island	105,587	3,238	108,825	5	108,830
25. Arkansas	77,174	465	77,639	19,935	97,574
26. Delaware	58,561	16,919	75,480	2,605	78,085
Territories :—					
Florida	27,943	817	28,760	25,717	54,477
District of Columbia	30,657	8,361	39,018	4,694	43,712
Iowa	42,924	172	43,096	16	43,112
Wisconsin	30,749	185	30,934	11	30,945
United States Navy	—	—	—	—	6,100
Total in 1840	14,189,705	386,293	14,575,998	2,487,355	17,069,453
Total in 1830	10,537,378	319,599	10,856,977	2,009,043	12,866,020

Taking the area of the above-named states at 1,300,000 square miles, there are not more than thirteen individuals to each square mile. The population is now probably 25,000,000.

The Indian population is thus stated for 1830 :—

New England, New York, Pennsylvania, and Virginia	7,693
North Carolina, South Carolina, and Georgia	8,400
Mississippi, Alabama, Louisiana, and Tennessee	44,539
Ohio, Indiana, Illinois, and Missouri	17,458
Michigan, Arkansas, Florida, and N. W. Territory	40,740
Between the Mississippi and the Rocky Mountains, exclusive of Louisiana, Mis- souri, and Arkansas Territory	94,300
Within and West of the Rocky Mountains	100,000
Total within the United States	313,130

The Indians in California, Texas, &c., make the present number about half a million.

The number of slaves in the United States is estimated as follows :—

1790.	1800.	1810.	1820.	1830.	1840.
697,697	896,849	1,191,364	1,538,064	2,010,436	2,487,355
Increase	199,152	294,515	346,697	471,982	478,312

The increase in the decennial period ending 1850 will probably exceed 500,000; and the slave population in the United States will consequently amount to about 3,000,000, irrespective of the addition caused by the annexation of Texas with the United States Republic.

The principal slave states and the number of slaves in 1840 were—Virginia, 448,987; S. Carolina, 327,038; N. Carolina, 245,817; Georgia, 280,944; Alabama, 253,532; Mississippi, 195,211; Tennessee, 183,059; Kentucky, 182,258; Louisiana, 168,452; Maryland, 89,737; Missouri, 58,240; Florida, 25,717; Arkansas, 19,935; Columbia, 4,694; Texas (no return as yet): there are but few slaves in the other states; not above 2,000 or 3,000 in all. In 1840, Massachusetts, Maine, Vermont, and Michigan were the only states without slaves. In our West India colonies the slave population would, in course of time, have become extinct; but in the United States their numbers more than doubled between 1790 and 1820, since which time the increase has not been so rapid. In 1830 the number of free persons to one slave was 5·39—in 1840 it was 5·86.

POPULATION OF THE PRINCIPAL CITIES.

Cities.	1790.	1800.	1810.	1820.	1830.	1840.	1845.
New York ..	33,131	60,489	96,373	123,766	203,007	312,710	371,102
Philadelphia ..	42,520	70,287	96,664	108,116	167,118	258,037*	..
Baltimore ..	13,503	26,614	46,555	62,738	80,625	134,379*	..
New Orleans ..	..	..	17,242	27,176	46,310	102,193	..
Boston ..	18,038	24,927	32,250	43,298	61,392	93,583	114,366
Cincinnati ..	..	750	2,540	9,644	24,831	46,338	..
Brooklyn ..	..	3,298	4,402	7,175	12,042	36,233	59,566
Albany ..	3,498	5,349	9,356	12,630	24,238	33,721	41,139
Charleston ..	16,359	18,712	24,711	24,480	30,289	29,261	..
Washington ..	..	3,210	8,208	13,247	18,827	23,364	..
Providence ..	..	7,614	10,071	11,767	16,832	23,171	..
Louisville ..	..	..	1,357	4,012	10,352	21,210	..
Pittsburg ..	..	1,565	4,768	7,248	12,542	21,115	..
Lowell ..	..	..	..	..	6,474	20,796	28,841
Rochester ..	..	..	..	1,502	9,269	20,191	25,265
Richmond ..	..	5,537	9,735	12,046	16,060	20,153	..
Troy ..	..	..	3,885	5,264	11,401	19,334	21,709
Buffalo ..	..	..	1,508	2,095	8,653	18,213	29,773
Newark ..	..	..	..	6,507	10,953	17,290	25,433
St. Louis ..	..	..	..	4,598	5,852	16,469	34,140
Portland ..	..	3,677	7,169	8,581	12,601	15,218	19,013†
Salem ..	7,921	9,457	12,613	12,721	13,886	15,082	..

* Including the county.

† In 1848.

TABLES OF SOME OF THE PRINCIPAL CITIES IN THE UNITED STATES. JULY, 1848.

Cities.	Date of incorporation.	Population.	Votes at a recent election.	Children from 5 to 16.	Children in common schools.	Debt.
						\$
Boston, Mass.	1822	114,366	13,353	..	8,524	1,323,550
Salem, Mass.	1836	16,762	2,274	..	2,548	73,175
Providence, R. I. ..	1832	31,753	3,974	8,644	6,177	185,304
Albany, N. Y.	1686	50,200	8,300	10,000	\$3,127	877,896
New York, N. Y. ..	1653	371,223	43,496*	..	..	†12,211,876
Rochester, N.Y. ..	1834	25,265	..	6,796	5,984	117,000
Washington, D. C. ..	1802	33,000	..	..	..	830,000
Savannah, Ga. ..	1789	13,573	..	†1,304	870	..
New Orleans, La. ..	1805	135,000	8,071	..	..	..
Nashville, Tenn. ..	1786	16,000	..	..	..	100,000
St. Louis, Mo.	1823	62,000	..	..	..	1,036,121
Detroit, Mich.	1802	18,000	2,243	5,089	..	280,000

Cities.	Receipts last Year. \$	Expenses last Year. \$	Taxable Real Estate. \$	Taxable Personal Estate. \$	Per centage of Tax.	Marriages last Year.	Deaths last Year.	Births last Year.	Paupers.
Boston, Mass.	3,561,973	3,351,709	97,764,500	64,595,900	·60	..	..	..	4,890
Salem, Mass.	115,183	114,868	4,091,750	5,992,250	·58	155	343	¶297	152
Providence, R. I. ..	128,734	120,596	16,637,700	11,878,300	·45	..	884	..	..
Albany, N. Y.	160,137	210,379	8,250,000	3,250,000	1·35	331	795	1,521	700
New York, N. Y. ..	5,392,674	5,557,213	187,315,386	59,837,917	1·11	..	15,788	..	5,549
Rochester, N. Y. ..	45,537	¶45,537	3,671,322	980,356	1·33	..	772	..	..
Washington, D. C. ..	130,000	..	12,000,000	..	·75	..	*3399	..	..
Savannah, Ga. ..	..	..	3,600,000	..	..	..	210	..	..
New Orleans, La. ..	1,244,338	..	80,000,000	..	‡ to 1	..	8,173	..	..
Nashville, Tenn. ..	55,000	25,000	4,180,000	1,395,585	·60	..	400	..	..
St. Louis, Mo.	292,359	292,359	25,650,000	..	1·05	..	..	..	..
Detroit, Mich.	41,842	41,870	2,487,161	..	2·05	..	..	..	..

In Boston, New York, Albany, and New Orleans, the number of paupers and of deaths the last year was materially increased by European immigrants. In New Orleans the number of deaths was also increased by the passage of unacclimated persons through that city to Mexico.

Albany has 6 breweries and 50 malting kilns.

Washington lays no tax on the real estate of the United States government therein, valued at 7,622,879 dols.

The number of names on the list of voters at *Salem* is 2,850.

The per-centage of tax affords little information concerning the rate of taxation, as the valuation of property varies in the different cities. In *Boston*, real estate is taxed at its actual value ; in *Detroit*, at about one-half its value.

* The number qualified in 1845 was 63,927.

† May 5th, 1848.

‡ This includes the white children between the ages of 5 and 14.

§ Average attendance.

¶ \$13,731 is to be added to this sum for the local tax for improvement of streets.

¶ Probably not entirely accurate.

** In 1846.

The number of paupers given for *Boston* is the total relieved during the year. The average number supported in the almshouse was 661.

St. Louis was settled in 1764, and incorporated as a town in 1810.

In *Boston*, in 1845, the number of children under sixteen years of age was 37,268.

The emigration from the United Kingdom to North America, since 1825, has been

Years.	North American Colonies.	United States.	Years.	North American Colonies.	United States.
1825	8,741	5,551	1838	4,577	14,332
1826	12,818	7,063	1839	12,658	33,536
1827	12,648	14,526	1840	32,293	40,642
1828	12,084	12,817	1841	38,164	45,017
1829	13,307	15,678	1842	54,123	63,852
1830	30,574	24,887	1843	23,518	28,335
1831	58,067	23,418	1844	22,924	43,660
1832	66,339	32,872	1845	31,803	58,538
1833	28,808	29,109	1846	43,439	82,239
1834	40,060	33,074	1847	109,680	142,154
1835	15,573	26,720	1848	31,065	188,233
1836	34,226	37,774	Total	767,373	1,040,797
1837	29,884	36,770			

The number of passengers which arrived in the United States in the year ending 30th September, 1847, was 239,270, of whom 138,939 were males, and 99,357 females, 983 sex not stated; 145,830 arrived in New York, 34,800 in Louisiana, 20,834 in Massachusetts, 14,599 in Pennsylvania, 12,009 in Maryland, 3,873 in Texas, and lesser numbers in other states. Of the whole immigrants, 128,838 were from Great Britain and Ireland, 73,444 from Germany, 20,555 from France, 3,826 from British America, and the remainder from various countries. As regards age, 18,807 were less than five years old, 18,222 between five and ten, 20,128 between ten and fifteen, 32,111 between fifteen and twenty, 46,570 between twenty and twenty-five, 36,987 between twenty-five and thirty, 24,314 between thirty and thirty-five, 16,645 between thirty-five and forty, above forty, 20,800; not returned, 4,276. With regard to occupations, 37,572 were labourers, 3,197 servants, 4,301 merchants, 465 professional men, 26,150 mechanics and manufacturers, 50,036 farmers, 1,055 women and children, not counted in families, and 116,174 other occupations, or unknown.

IMMIGRATION INTO NEW YORK.—The following table will present at one view the number of immigrants who have arrived at this port in the first seven months of each year, from 1844 to the present time, and will show the progressive increase which has taken place in each year in what has now become an immense and

profitable business—the conveyance of immigrant passengers from Europe to America.

Number of immigrants who arrived at New York from January to July in the years from 1844 to 1849 :—

	1844.	1845.	1846.	1847.	1848.	1849.
January ..	662	1,298	1,019	4,427	7,371	8,248
February ..	727	450	571	3,460	3,560	8,809
March ..	712	2,677	3,770	2,095	4,393	9,649
April ..	3,372	5,206	6,256	21,412	14,531	19,934
May ..	5,283	10,662	16,772	27,643	33,877	37,406
June ..	14,498	15,150	18,596	25,255	23,047	29,078
July ..	9,401	13,117	13,236	17,926	24,622	30,098
	34,655	48,560	60,220	102,118	110,404	143,222

The increase in the present year is, it will be perceived, 32,818 over the number arriving in the same time of last year; and the number arriving in seven months of the present year is more than fourfold the number who arrived in an equal time of 1844: the daily average for 181 days was 791 immigrants.

Of the 143,222 immigrants who arrived in the first seven months of the present year, 101,220 were born in Great Britain and Ireland, or nearly 71 per cent., being an increase in the proportion over the previous year of 4 per cent.; and of the remaining 42,002, there were 34,142 who were born in Germany, or nearly 24 per cent., being a decrease in the proportion since last year of $4\frac{1}{2}$ per cent.

GOVERNMENT.—A political union of several independent states, forming a confederacy of republics, each possessing its own constitution and an organized Executive and Legislative department. Each state elects its own local Governor annually or biennially; in two states the Governor is chosen by the legislature, in others, by the people. Each state elects annually a House of Representatives, and a Senate every four years. In the Eastern and Middle States, the suffrage is almost universal, and throughout the Union voting by ballot prevails. The general government of the Republic is conducted by a Congress, consisting of a Senate, a House of Representatives, and a President. The President is elected every four years by electors from the several states; the Senate is composed of two senators from each state, chosen by the legislature of each state for six years; the House of Representatives is composed of members not less than twenty-five years of age, chosen every second year by the people of the several states; the Executive General Government is composed of departments of State, Treasury, War, Navy, and Post-office; the heads of these departments are selected by the President. The seat of the general government is at Washington.

The Names and Dates of the different Presidents of the United States, from the period of the adoption of the Constitution, were as follows:—

Name.	State to which he belonged.	Term began.	Term ended.
1. George Washington ..	Virginia ..	April 30, 1789	March 3, 1797
2. John Adams ..	Massachusetts ..	March 4, 1797	— 1801
3. Thomas Jefferson ..	Virginia ..	— 1801	— 1809
4. James Madison ..	Virginia ..	— 1809	— 1817
5. James Monroe ..	Virginia ..	— 1817	— 1825
6. Quincy Adams ..	Massachusetts ..	— 1825	— 1829
7. Andrew Jackson ..	Tennessee ..	— 1829	— 1837
8. Martin Von Buren ..	New York ..	— 1837	— 1841
9. William H. Harrison ..	Ohio ..	— 1841	Died 1841
10. John Tyler ..	Virginia ..	April 1841	March 1845
11. James Knox Polk ..	Tennessee ..	March 1845	— 1849
12. General Taylor ..	.. ..	— 1849	

The following statement exhibits the Seats of Government, the Times of the Election of State Officers, and the Meeting of the Legislatures of the several States:—

States.	Seats of Government.	Times of the Meeting of the Legislatures.
Maine ..	Augusta ..	2nd Wednesday in May.
New Hampshire ..	Concord ..	1st Wednesday in June.
Vermont ..	Montpelier ..	2nd Thursday in October.
Massachusetts ..	Boston ..	1st Wednesday in January.
Rhode Island ..	{ Providence ..	1st Tuesday in May.
	{ Newport ..	Last Monday in October.
Connecticut ..	Hartford and New Haven ..	1st Wednesday in May.
New York ..	Albany ..	1st Tuesday in January.
New Jersey ..	Trenton ..	4th Tuesday in January.
Pennsylvania ..	Harrisburg ..	1st Tuesday in January.
Delaware ..	Dover ..	1st Tuesday in January, <i>biennially</i> .
Maryland ..	Annapolis ..	Last Monday in December, <i>biennially</i> .
Virginia ..	Richmond ..	1st Monday in December.
North Carolina ..	Raleigh ..	3rd Monday in November, <i>biennially</i> .
South Carolina ..	Columbia ..	4th Monday in November.
Georgia ..	Milledgeville ..	1st Monday in November, <i>biennially</i> .
Florida ..	Tallahassee ..	1st Monday in November.
Alabama ..	Montgomery ..	1st Monday in December, <i>biennially</i> .
Mississippi ..	Jackson ..	1st Monday in January, <i>biennially</i> .
Louisiana ..	Baton Rouge ..	3rd Monday in January, <i>biennially</i> .
Texas ..	Austin ..	January, <i>biennially</i> .
Arkansas ..	Little Rock ..	1st Monday in November, <i>biennially</i> .
Tennessee ..	Nashville ..	1st Monday in October, <i>biennially</i> .
Kentucky ..	Frankfort ..	1st Monday in December.
Ohio ..	Columbus ..	1st Monday in December.
Indiana ..	Indianapolis ..	1st Monday in December.
Illinois ..	Springfield ..	1st Monday in January, <i>biennially</i> .
Missouri ..	Jefferson City ..	1st Monday in November, <i>biennially</i> .
Michigan ..	Lansing ..	1st Monday in January.
Iowa ..	Iowa City ..	1st Monday in December, <i>biennially</i> .
Wisconsin ..	Madison ..	1st Monday in June.*

* This was the first meeting of the Legislature. The political year commences on the 1st Monday in January

THE CABINET.—The following are the principal officers in the *Executive Department* of the Government, who form the Cabinet, and who hold their offices at the will of the President:—

Secretary of State	Dols.	Salary.	Secretary of the Navy	Dols.	Salary.
Secretary of the Treasury	6,000		Postmaster-General	6,000	
Secretary of War	6,000		Attorney-General	4,000	

Each state possesses within itself all the functions necessary to the independent exercise of its powers of a sovereign state. The following table shows the Governors of the several states and territories, with their salaries and terms of office; the number of senators and representatives in the state legislatures, with their respective terms:—

States.	Salaries of Governors.	Governor, Term years.	Senators.	Term years.	Representatives.	Term years.	States.	Salaries of Governors.	Governor, Term years.	Senators.	Term years.	Representatives.	Term years.
	\$							\$					
Maine ..	1,500	1	31	1	151	1	Alabama ..	3,500	2	33	3	100	2
N. Hampshire ..	1,000	1	12	1	286	1	Mississippi ..	3,000	2	32	4	92	2
Vermont ..	750	1	30	1	230	1	Louisiana ..	6,000	4	32	4	98	2
Massachusetts ..	2,500	1	40	1	356	1	Texas ..	2,000	2	21	4	66	2
Rhode Island ..	400	1	31	1	69	1	Arkansas ..	2,000	4	25	4	75	2
Connecticut ..	1,100	1	21	1	215	1	Tennessee ..	2,000	2	25	2	75	2
New York ..	4,000	2	32	2	128	1	Kentucky ..	2,500	4	38	4	100	1
New Jersey ..	2,000	3	18	3	58	1	Ohio ..	1,500	2	36	2	72	1
Pennsylvania ..	3,000	3	33	3	100	1	Michigan ..	1,500	2	22	2	66	1
Delaware ..	1,333 $\frac{1}{3}$	3	9	4	21	2	Indiana ..	1,500	3	50	3	100	1
Maryland ..	2,000*	3	21	6	82	2	Illinois ..	1,000	4	25	4	75	2
Virginia ..	3,333 $\frac{1}{3}$	3	32	4	134	1	Missouri ..	1,500	4	18	4	49	2
N. Carolina ..	2,000	2	50	2	120	2	Iowa ..	1,000	4	19	4	39	2
S. Carolina ..	3,500	2	45	4	124	2	Wisconsin ..	1,250	2	18	2	54	1
Georgia ..	3,500	2	47	1	130	1	Oregon Ter.	3,000†	4	9	2	18	1
Florida ..	2,500	4	17	2	41	1							

In all the states, except Virginia and South Carolina, the Governor is voted for by the people; and if no one has a majority of all the votes, in the states in which such a majority is required, the Legislature elects to the office of Governor one of the candidates voted for by the people.

THE JUDICIAL power of the United States is vested in one supreme court, and in such inferior courts as Congress may from time to time ordain and establish. The judges hold their office during good behaviour. All crimes, except impeachment, are tried by jury, and in the state where the crime has been committed.

THE PRESS.—In 1750 there were but seven newspapers in the United States; in 1810 there were 359; in 1823 there were 588; in 1828 there were 892, of which Pennsylvania alone had 185, and New York 161. The present circulation of newspapers in the United States is about 50,000,000 annually.

* With the use of a furnished house.

† Including \$1,500 as Superintendent of Indian Affairs.

EDUCATION.—Extensively provided for in every state. There are, throughout the Union, 118 Colleges, 42 Theological Schools, 10 Law Schools, and 36 Medical Schools. The expenses annually incurred at different Colleges are,—

Name.	Instruction.	Room-rent and other Coll. Exp.	Total College Charges.	Board.	Wood, Lights, and Washing.
	\$	\$	\$	Weeks. \$	\$
Bowdoin	24	22	46	39	58
Dartmouth	27	13	40	38	57
Harvard	75	15	90	40	70 to 90
Williams	30	9	39	39	65
Amherst	33	15	48	40	60
Brown	40	23	63	39	60
Yale	33	21	54	40	60 to 90
Wesleyan	36	11	47	39	58
Hamilton	26	14	40	38 or 39	58
New Jersey	50	28	78	40	80
Dickinson	33	14	47	43	75
University of Virginia	75	23	98	44	110
N. Carolina University	50	11	61	40	90
Transylvania	40	12	52	40	100
Western Reserve	30	11	41	42	50

RELIGION.—No religion connected with the State. All forms of Christian worship are protected. The people are, generally speaking, religious; but divided into many sects. Twenty-nine bishops are in connection with the Church of England.

RELIGIOUS DENOMINATIONS.

According to returns made in 1844—47, and by estimate.

Names.	Churches.	Ministers.	Communicants.
Roman Catholics	907	917	1,190,700
Protestant Episcopalians	1,232	1,404	67,550
Presbyterians, Old School	2,376	1,713	179,453
Presbyterians, New School	1,651	1,551	155,000
Cumberland Presbyterians	570	300	60,000
Other classes of Presbyterians	530	293	45,500
Dutch Reformed	276	289	32,840
German Reformed	261	803	75,000
Evangelical Lutherans	1,452	598	150,000
Moravians	22	24	6,000
Methodist Episcopal .. .. .	..	5,042	1,112,756
Methodist Protestant Church .. .. .	..	740	64,313
Reformed Methodists .. .. .	..	75	3,000
Wesleyan Methodists .. .. .	..	600	20,000
German Methodists (United Brethren)	1,800	500	15,000
Allbright Methodists (Evangelical Association)	600	250	15,000
Meunonites	400	250	58,000
Orthodox Congregationalists	1,727	1,584	179,176
Unitarian Congregationalists	300	250	30,000
Universalists	1,194	700	60,000
Swedenborgians	42	30	5,000
Regular Baptists	7,883	4,651	655,536
Six-Principle Baptists	20	22	3,400
Seventh-day Baptists	63	58	6,943
Free-will Baptists	1,165	771	63,000
Church-of-God Baptists	130	90	8,000
Reformed Baptists (Campbellites)	1,800	1,000	160,000
Christian Baptists (Unitarians)	650	782	35,600

MILITIA.—The following is an Abstract of the United States Militia, from the Army Register for 1848:—

States and Territories.	For what year.	General Officers.	General Staff Officers.	Field Officers, &c.	Company Officers.	Total Commissioned Officers.	Non-commissioned Officers, Musicians, Privates, &c.	Aggregate.
Maine	1845	26	95	540	1,659	2,320	42,345	44,665
New Hampshire ..	1847	12	40	325	1,224	1,601	25,465	27,066
Massachusetts ..	1847	9	35	74	380	498	94,157	94,655
Vermont	1843	12	51	224	801	1,088	22,827	23,915
Rhode Island ..	1847	6	21	42	9	78	14,068	14,146
Connecticut ..	1846	11	38	292	983	1,324	56,395	57,719
New York	1847	136	366	2,505	6,465	9,472	158,172	167,644
New Jersey ..	1829	19	58	435	1,476	1,988	37,183	39,171
Pennsylvania ..	1847	55	164	1,245	6,054	7,518	268,552	276,070
Delaware ..	1827	4	8	71	364	447	8,782	9,229
Maryland ..	1838	22	68	544	1,763	2,397	44,467	46,864
Virginia ..	1847	28	62	1,351	5,395	6,836	115,155	121,991
North Carolina ..	1845	28	133	657	3,449	4,267	75,181	79,448
South Carolina ..	1846	19	101	452	2,026	2,598	52,107	54,705
Georgia ..	1839	36	98	746	2,212	3,092	54,220	57,312
Alabama ..	1847	31	187	564	1,382	2,164	42,168	44,332
Louisiana ..	1847	10	55	159	1,168	1,392	42,431	43,823
Mississippi ..	1838	15	70	392	348	825	35,259	36,084
Tennessee ..	1840	25	79	859	2,644	3,607	67,645	71,252
Kentucky ..	1847	48	125	1,112	3,518	4,803	83,539	88,342
Ohio ..	1845	91	217	462	1,281	2,051	174,404	176,455
Indiana ..	1832	31	110	566	2,154	2,861	51,052	53,913
Illinois ..	1841	..	..	..	..	..	..	83,234
Missouri ..	1844	45	94	790	2,990	3,919	57,081	61,000
Arkansas ..	1843	8	29	310	762	1,109	16,028	17,137
Michigan ..	1847	26	121	336	2,110	2,593	57,413	60,006
Florida ..	1845	3	14	95	508	620	11,502	12,122
Texas ..	1847	15	45	248	940	1,248	18,518	19,766
Iowa ..	—	—	—	—	—	—	—	—
Wisconsin T. ..	1840	1	6	36	126	169	5,054	5,223
D. of Columbia ..	1832	1	3	24	68	96	1,153	1,249
Total .. ..	..	773	2,493	15,456	54,259	72,981	1,732,323	1,888,538

STANDING ARMY.—By a communication from the Secretary of War to Congress, it appears that the total number of soldiers in the army, after the discharge of those enlisted for the war, is 8,866.

THE NAVAL SERVICE of the United States in 1848 comprised 67 captains, 97 commanders, 327 lieutenants, 68 surgeons, 41 passed assistant-surgeons, 37 waiting assistant-surgeons, 64 pursers, 24 chaplains, 208 passed midshipmen, 21 masters, 21 professors of Mathematics, 3 teachers at naval schools, 38 boatswains, 44 gunners, 40 carpenters, and 29 sailmakers. The pay of the captains on service is 4,500 dols. per annum, on leave 3,500 dols.; other ranks in proportion. Ships of the line 11, frigates first class 12, frigates second class 2, sloops of war 22, brigs 4, schooners 10, bombs 5, steamers 14, storeships and brigs 6. The vessels of the line are all of 74 guns, except one of 120; four are building. The steamers are of small size, and carry 1 to 11 guns. Of the 11 ships of the line, 1

was built in 1815, 1 in 1819, 3 in 1820, 1 (120 guns) in 1837, 1 in 1843, and 3 are building. A *razee* (54) was built in 1814. Of the 12 first-class frigates, 2 were built in 1797, 1 in 1821, 1 in 1825, 1 in 1836, 1 in 1841, 2 in 1842, 1 in 1843, and 3 are building.

THE MARINE CORPS has the organization of a brigade, and numbers now 85 commissioned officers, and 1,295 non-commissioned officers, musicians, and privates; in all, 1,353 men. The pay and allowances of the officers of the marine corps are the same as those of officers of the same grades in the infantry of the army, except the adjutant and inspector, who have the same pay and allowances as the paymaster of the marines. The marine corps is subject to the laws and regulations of the navy, except when detached for service with the army by the order of the President of the United States. The head-quarters of the corps are at Washington.

INTERCOURSE WITH FOREIGN NATIONS.—August 4th, 1848.—The *pay* of Ministers Plenipotentiary is 9,000 dols. per annum, as salary, besides 9,000 dols. for outfit. The pay of *Chargés d'Affaires* is 4,500. dols per annum; of Secretaries of Legation, 2,000 dols.; of Ministers Resident, 6,000 dols.

The United States are represented by Ministers Plenipotentiary at the courts of Great Britain, France, Russia, Prussia, Spain, Mexico, and Brazil; and by *Chargés d'Affaires* at the courts of most of the other foreign countries with which the country is much connected by commercial intercourse.

THE ARSENALS OF THE UNITED STATES are *Kennebeck*, Maine; *Watertown*, Massachusetts; *Champlain*, Vermont; *Watervliet*, New York; *Rome*, New York; *Alleghany*, Pennsylvania; *Frankford*, Pennsylvania; *Pikesville*, Maryland; *Washington*, District of Columbia; *Bellona*, Virginia; *St. Louis*, Missouri; *Baton Rouge*, Louisiana; *Mount Vernon*, Alabama; *Detroit*, Michigan; *North Carolina*, North Carolina; *Apalachicola*, Florida; *Little Rock*, Arkansas. There are extensive manufactories of cannon, fire-arms, swords, and other implements of war at several places in the United States; and there is great abundance of iron, lead, and other metals in the country applicable to military purposes.

Mining operations are increasing. There are about 1,000 furnaces, producing annually more than 300,000 tons of cast-iron; an equal number of forge-mills, producing 250,000 tons of wrought-iron; Dol. 25,000,000 are invested, and 25,000 men employed; lead-smelting-houses, 130, yielding 50,000,000 lbs.; of gold, 140 smelting-houses, furnishing to the value of half a million dollars. A capital of 6,000,000 dols. is invested in the production of anthracite coal.

FINANCES.—The resources of the United States have increased with the extension of territory and the augmentation of population. The United States Government and the several states are as solvent, if not more so, as any European state.

STATISTICS OF

REVENUE AND EXPENDITURE.

[From a Report of the Secretary of the Treasury, December 8, 1847.]

Statement of Duties, Revenues, and Public Expenditures during the Fiscal Year ending June 30, 1847.

The receipts into the Treasury were as follow :—	Year ending June 30, 1847.	Expenditures (<i>Foreign Intercourse</i>) continued.	Year ending June 30, 1847.
From customs, viz. :—	\$		\$
During the first quarter	6,153,826	Salary of the Consul at London	2,000
During the second quarter	3,641,192	Relief and protection of American seamen	87,370
During the third quarter	6,319,041	Clerk-hire, office-rent, &c. to American	
During the fourth quarter	7,633,804	Consul, London	2,800
Total customs	23,747,864	Intercourse with Barbary powers	6,300
From sales of public lands	2,498,355	French seamen killed or wounded at	
From miscellaneous sources	100,570	Toulon	5 30
Total receipts, exclusive of loans, &c.	26,346,790	Interpreters, guards, &c., at the Consu-	
Balance in the Treasury, July 1, 1845		lates in Turkish dominions	2,329
and 1846	9,126,439	Payments under the ninth article of treaty	
Total, exclusive of loans	35,473,229	with Spain	440
Avails of Treasury-notes, issued under act		Compensation for certain diplomatic ser-	
of July 22, 1846, less \$1,931,000 funded	5,506,800	vices	3,000
Avails of Treasury-notes, issued under act		To Commissioner to Sandwich Islands	6,417
of Jan. 28, 1847, less \$1,221,850 funded	11,149,300	Outstanding claims of missions to China	6,079
Avails of loan under act of July 22, 1846	4,888,149	Commissioner and Secretary to reside in	
Avails of loan under act of Jan. 28, 1847,		China	11,250
less \$40,350 funded	4,134,950	Total foreign intercourse	391,113
Total means	61,152,428		
The expenditures, exclusive of trust funds, were as follow :—		<i>Miscellaneous.</i>	
<i>Civil List.</i>		Surveys of public lands	145,013
Legislature	974,324	Support and maintenance of light-houses	501,018
Executive	875,718	Marine hospitals	123,257
Judiciary	571,377	Building marine hospitals	7,058
Governments in the Territories	36,987	Public buildings in Washington	35,067
Surveyors and their clerks	56,380	Furniture of the President's house	1,162
Officers of the Mint and branches	43,725	Support of the penitentiary in dist. Co-	
Commissioner of the Public Buildings ..	1,994	lumbia	12,719
Secretary to sign patents for public lands	1,500	Patent Fund	44,280
Total civil list	2,562,008	Distribution of the sales of public lands	11,181
<i>Foreign Intercourse.</i>		Payment to Maine and Massachusetts,	
Salaries of Ministers	62,944	for expenses incurred in protecting the	
Salaries of Secretaries of Legation	14,046	heretofore disputed territory	19,805
Salaries of Chargés d'Affaires	58,713	Building custom-houses, &c.	64,062
Salary of Minister Resident to Turkey ..	8,500	Survey of the coast of the United States ..	111,000
Outfits of Ministers and Chargés d'Affaires ..	56,750	Mint establishment	89,972
Salary of Dragoman to Turkey and con-		Relief of sundry individuals	120,070
tingencies	2,000	Auxiliary watch in the city of Washington	6,776
Contingent expenses of all the missions		Expenses incidental to loans and Treas-	
abroad	35,365	ury notes	26,184
Renewal of diplomatic intercourse with		Support of lunatics of the dist. of Co-	
Mexico	4,500	lumbia	5,770
Contingent expenses of foreign intercourse	17,809	Three per cent. to Illinois	17,200
Salary of Consul at Syria and Palestine ..	1,997	Five per cent. to Michigan	1,262
		Five per cent. to Arkansas	749
		Three per cent. to Ohio	65,975
		Five per cent. to Florida	
		Relief of the cities of the dist. of Co-	
		lumbia	117,471
		Debentures and other charges	430,668
		Additional compensation to collectors, &c. ..	10,697
		Payment of horses, &c. lost	18,424
		Duties refunded under protest	560,483

	Year ending June 30, 1847.	Expenditures (<i>War Department</i>) continued.	Year ending June 30, 1847.
Expenditures (<i>Miscellaneous</i>) continued.	\$		\$
Repayment for lands erroneously sold ..	23,335	Surveys	38,121
Refunding purchase-money for land sold in the Greensburg district, Louisiana ..	6,876	Pensions	1,726,785
Results and account of the Exploring Expedition	25,252	Indian Department	1,228,280
Preparing indices to the manuscript papers of Washington	2,000	Claims of the State of Virginia	23,160
Payment of books ordered by Congress ..	107,871	Arming and equipping the militia	162,597
Deficiency in revenue from postage	225,000	Payments to militia and volunteers	1,368,709
Postage of departments, and (in 1846-47) of Congress	311,298	Mexican hostilities	16,001,226
Additional compensation to judges in Missouri	4,000	Relief of individuals and miscellaneous ..	141,247
Proposed edition of the Laws and Treaties of the United States	10,500	Total under direction of the War Dep't.	41,281,606
Building light-houses	7,099	<i>Under the direction of the Navy Dep't.</i>	
Statues for east front of Capitol	7,500	Pay and subsistence, including medi- cines, &c.	2,516,573
Smithsonian Institution, act of Aug. 10, 1846	257,584	Increase, repairs, armament, and equip- ment	1,298,503
Payments of sundry certificates	4,250	Contingent expenses	467,995
Documentary history of the United States ..	25,245	Navy yards	691,844
Discriminating tonnage duties	2,801	Navy hospitals and asylums	28,477
Certain duties refunded	128,855	Magazines	1,447
Expenses of mineral land service	7,500	Relief of individuals and miscellaneous ..	169,607
Boundary-line between United States and British provinces	26,000	Marine corps	277,884
Salaries of assistant treasurers and clerks, act of Aug. 6, 1846	11,102	Pensions to invalids, widows, &c.	115,008
Contingencies under said act	5,000	Mexican hostilities	2,364,291
Compensation of special agents to ex- amine accounts, &c.	1,900	Total under direction of the Navy Dep't.	7,931,633
Plans and drawings made by topographi- cal officers, under resolution of Senate ..	4,988	<i>Public Debt.</i>	
All other items of a miscellaneous nature ..	5,565	Paying the old public debt	8,081
Total miscellaneous	3,762,732	Interest on the public debt	1,059,039
<i>Under the direction of the War Deptmt.</i>		Redemption of the loan of 1841	3,000
Army proper	17,880,842	Redemption of Treasury-notes	2,361,397
Military Academy	124,339	Interest on Treasury-notes	53,027
Fortifications and other works of defence ..	932,962	Interest on Mexican indemnity	7,147
Armories, arsenals, and munitions of war ..	1,617,216	Redemption of Treasury-notes purloined, including interest	30,388
Harbours, roads, rivers, &c.	36,117	Total public debt	3,522,082
		Total expenditures	59,451,177
		Balance in the Treasury, July 1, 1846-47	1,701,251

Statement of the Debt of the United States on the 1st of December, 1847.

Of the principal and interest of the old funded and unfunded debt	\$122,288
Treasury-notes issued during the war of 1812	4,317
Certificates of the Mississippi stock	4,320
Debt of the corporate cities of the District of Columbia	1,080,000
Outstanding Treasury-notes of issues of 1837 to 1843	239,789
Outstanding Treasury-notes funded	77,178
Loan of 1842 at 6 per cent.	8,343,886
Loan of 1843 at 5 per cent.	6,604,231
Loan of 1846 at 6 per cent.	4,999,149
Loan of 1847 at 6 per cent. (less notes funded issued before 1845)	9,173,772
Five per cent. stock issued in payment of Mexican indemnity	301,952
Military bounty land, at 6 per cent. per act of Feb. 11, 1847	84,525
Outstanding Treasury-notes per act of 22nd of July, 1846	984,750
Outstanding Treasury-notes per act of 28th of Jan., 1847	13,639,500
Total	45,659,659

STATISTICS OF

Amount of the Public Debt of the United States on the 4th March, 1841; also on the 4th March, 1845, with the Amounts since Paid, and Remaining Unpaid on the 20th June, 1848.

PUBLIC DEBT ON 4TH MARCH, 1841.

Principal and Interest of the old Funded and Unfunded Debt	\$ 324,521
Treasury Notes of 1812-14	4,795
Mississippi Stock Certificates	4,320
Debt of the Corporate Cities in the District of Columbia, assessed by Congress	1,440,000
Treasury Notes of 1837 to 1840	5,680,831
Total	\$ 7,454,467
	£ 1,553,014

PUBLIC DEBT FROM 1845 TO 1848.

	Debt 5th March, 1845.	Paid up to 20th June, 1848.	Remaining unpaid 20th June, 1848.
Principal and Interest of old Funded and Unfunded Debt ..	\$ 176,451	\$ 57,263	\$ 119,188
Treasury Notes issued during the war of 1812	4,317	..	4,317
Certificate of Mississippi Stock	4,320	..	4,320
Debt of the Corporate Cities of the District of Columbia, 5½ per cent., per Act of 20th May, 1836, payable 60,000 dols. per ann. }	1,200,000	180,000	1,020,000
Outstanding Treasury Notes of the issues of 1837 to 1843 ..	1,224,779	1,077,390*	167,389
Treasury Notes issued prior to 22nd July, 1846, funded under Act of 28th January, 1847, payable 31st December, 1847 }	..	..	128,728
Loan of 21st July, 1841, payable 31st December, 1847	210,815	210,815	..
Loan of 15th April, 1842, 6 per cent., payable 31st December, 1862	8,343,886†	..	8,279,382
Loan of 3rd March, 1843, 5 per cent., payable 1st July, 1853 ..	6,604,231	..	6,604,321
Total	\$ 17,788,799	1,525,468	16,327,555

DEBT INCURRED SINCE 4TH MARCH, 1845.

Loan of 22nd July, 1846, 6 per cent., payable 12th November, 1856 ..	4,999,149	
Loan of 25th January, 1847, payable 31st December, 1867	12,880,272	
Stock issued in payment of the 4th and 5th instalment of the Mexican Indemnity, 5 per cent. per Act of 10th August, 1846, payable after 9th August, 1851 }	303,391	
Stock issued in payment of Military Bounty Lands, 6 per cent., per Act of 11th February, 1847, payable at pleasure of the Government	147,500	
Outstanding Treasury Notes of the issue of 22nd July, 1846	409,800	
" " 28th January, 1847	13,128,650	31,868,762

Total Public Debt, 20th June, 1848 { \$ 48,196,317
£ 10,040,899

The above sum of \$ 48,196,317 or £ 10,040,839 is the aggregate amount of Public Debt recorded in the Register's Office of the Treasury Department.

Of that amount \$ 31,868,762 or £ 6,639,325 (as above) has been incurred since 1st July, 1846.
There remains to be paid into the Treasury under the Acts 22nd July, 1846, 28th January, 1847, and 31st March, 1848 17,482,128 or 3,662,943
Making together, if the whole should be paid, the sum of 49,450,891 or 10,302,268

which may be estimated as the War Debt, as provided for by estimate up to June 30th, 1849. And, if the contingent of 17,582,128 dols. is added to the actual debt of 48,196,317 dols., the total would be 65,778,445 dols., or £13,703,842.

* Included in this sum is 126,728 dols. for the reimbursement of notes funded.

† By the Act 27th June, 1846, sect. 2, the sum of 64,500 dols. was cancelled of the loan of 15th April, 1842.

THE UNITED STATES.

771

Statement of the Receipts into the National Treasury, from Customs, Internal Revenue, and Direct Taxes, and Sales of Public Lands, fractions of a dollar being excluded.

Years.	Customs.	Internal and Direct Taxes.	Sales of Lands and Miscellaneous.	Aggregate of Receipts.	
				In each year.	In each period of Four Years.
	\$	\$	\$	\$	\$
1789—91	4,399,472	..	..	4,399,473	
1792	3,443,071	208,943	..	3,652,014	8,051,487
1793	4,255,306	337,706	..	4,593,012	
1794	4,801,065	274,090	..	5,075,155	
1795	5,588,461	337,755	..	5,926,216	
1796	6,567,988	475,290	4,836	7,048,114	22,642,497
1797	7,549,650	575,491	83,541	8,208,682	
1798	7,106,062	644,358	11,963	7,762,383	
1799	6,610,449	779,136	..	7,389,585	
1800	9,080,933	1,543,620	444	10,624,997	33,985,647
1801	10,750,779	1,582,377	167,726	12,500,882	
1802	12,438,236	828,464	188,628	13,455,328	
1803	10,479,418	287,059	165,676	10,932,153	
1804	11,098,465	101,139	487,527	11,687,231	48,575,694
1805	12,936,487	43,631	540,194	13,520,312	
1806	14,667,698	75,865	765,246	15,508,809	
1807	15,845,522	47,784	466,163	16,359,469	
1808	16,363,550	27,370	647,939	17,038,859	62,427,449
1809	7,296,021	11,562	442,252	7,749,834	
1810	8,583,309	19,879	696,549	9,299,737	
1811	13,313,223	9,962	1,040,238	14,363,423	
1812	8,958,778	5,762	710,428	9,674,968	41,087,963
1813	13,224,623	8,561	835,655	14,068,839	
1814	5,998,772	3,882,482	1,135,971	11,017,225	
1815	7,282,942	6,840,733	1,287,959	15,411,634	
1816	36,306,875	9,378,344	1,717,985	47,403,204	87,900,902
1817	26,283,348	4,512,288	1,991,226	32,786,862	
1818	17,176,385	1,219,613	2,606,565	21,002,563	
1819	20,283,609	313,244	3,274,423	23,871,276	
1820	15,005,612	137,847	1,635,872	16,779,331	94,440,032
1821	13,004,447	98,377	1,212,966	14,315,790	
1822	17,589,762	88,617	1,803,582	19,481,961	
1823	19,088,433	44,580	916,523	20,049,536	
1824	17,878,326	40,865	984,418	18,903,609	72,750,896
1825	20,098,714	28,102	1,216,090	21,342,906	
1826	23,341,332	28,228	1,393,785	24,763,345	
1827	19,712,283	22,513	1,495,945	21,230,641	
1828	23,205,524	19,671	1,018,309	24,243,504	91,580,396
1829	22,681,966	25,838	1,517,175	24,224,979	
1830	21,922,391	29,141	2,329,356	24,280,888	
1831	24,224,442	17,440	3,210,815	27,452,697	
1832	28,465,237	18,422	2,623,381	31,107,040	107,065,604

STATISTICS OF

Statement of the Receipts into the National Treasury—continued.

Years.	Customs.	Internal and Direct Taxes.	Sales of Lands and Miscellaneous.	Aggregate of Receipts.	
				In each year.	In each period of Four Years.
	\$	\$	\$	\$	\$
1833	29,032,509	3,153	3,967,682	33,003,344	136,531,972
1834	16,214,957	4,216	4,857,601	21,076,774	
1835	19,391,311	14,723	4,757,601	34,163,635	
1836	23,409,940	1,099	4,877,180	48,288,219	
1837	11,163,290	..	6,863,556	18,032,846	84,798,731
1838	16,158,800	..	3,214,184	19,372,984	
1839	23,137,9.5	..	7,261,118	30,399,043	
1840	13,499,502	..	3,494,356	16,993,858	
1841	14,487,217	..	1,470,295	15,957,512	72,171,324
1842	18,187,909	..	1,456,058	19,643,967	
6 mo. of 1843	7,046,844	..	1,018,482	8,065,326	
1844	26,183,571	..	2,320,948	28,504,519	
*1845	27,528,113	..	2,241,021	29,769,134	
*1846	26,712,668	..	2,786,579	29,499,247	
*1847	23,747,864	..	2,598,926	26,346,790	

Statement of the Expenditures of the United States, exclusive of Payments on account of the Public Debt and from Trust Funds, Fractions excluded.

Years.	Civil List, Foreign Inter-course, and Miscellaneous.	Military Establishment.	Naval Establishment.	Aggregate of Expenditure.	
				In each year.	In each period of Four Years.
	\$	\$	\$	\$	\$
1789—91	1,083,401	835,618	570	1,919,589	3,797,493
1792	654,257	1,223,594	53	1,877,904	
1793	472,450	1,237,620	..	1,710,070	
1794	705,5.8	2,733,540	61,409	3,500,547	
1795	1,367,037	2,573,059	410,562	4,350,658	12,083,205
1796	772,485	1,474,661	274,784	2,521,930	
1797	1,246,904	1,194,055	382,632	2,823,591	
1798	1,111,038	2,130,837	1,381,348	4,623,223	
1799	1,039,392	2,582,693	2,858,082	6,480,167	21,338,351
1800	1,337,613	2,625,041	3,448,716	7,411,370	
1801	1,114,768	1,755,477	2,111,424	4,981,669	
1802	1,462,929	1,358,589	915,562	3,737,080	
1803	1,842,636	944,958	1,215,231	4,002,825	17,174,433
1804	2,191,009	1,072,017	1,189,833	4,452,859	
1805	3,768,588	991,136	1,597,500	6,357,224	
1806	2,891,037	1,540,431	1,649,641	6,081,109	
1807	1,697,897	1,564,611	1,722,064	4,984,572	23,927,244
1808	1,423,286	3,196,985	1,884,068	6,504,339	

* For the year ending June 30.

Statement of the Expenditures of the United States—continued.

Year.	Civil List, Foreign Inter- course, and Miscellaneous.	Military Establishment.	Naval Establishment.	Aggregate of Expenditure.	
				In each year.	In each period of Four Years.
	\$	\$	\$	\$	\$
1809	1,215,804	3,771,109	2,427,759	7,414,672	
1810	1,101,145	2,555,693	1,654,244	5,311,082	
1811	1,367,291	2,259,747	1,965,566	5,592,604	
1812	1,683,088	12,187,046	3,959,365	17,829,499	36,147,857
1813	1,729,435	19,906,362	6,446,600	28,082,397	
1814	2,208,029	20,608,366	7,311,291	30,127,686	
1815	2,898,871	15,394,700	8,660,000	26,953,571	
1816	2,989,742	16,475,412	3,908,278	23,373,432	108,537,086
1817	3,518,937	8,621,075	3,314,598	15,454,610	
1818	3,835,839	7,019,140	2,953,695	13,808,674	
1819	3,067,212	9,385,421	3,847,640	16,300,273	
1820	2,592,022	6,154,518	4,387,990	13,134,530	58,698,087
1821	2,223,122	5,181,114	3,319,243	10,723,479	
1822	1,967,996	5,635,187	2,224,459	9,827,642	
1823	2,022,094	5,258,295	2,503,766	9,784,155	
1824	7,155,308	5,270,255	2,904,582	15,330,145	45,665,421
1825	2,748,544	5,692,831	3,049,084	11,490,459	
1826	2,600,178	6,243,236	4,218,902	13,062,316	
1827	2,314,777	5,675,742	4,263,878	12,254,397	
1828	2,886,052	5,701,203	3,918,786	12,506,041	49,313,213
1829	3,092,214	6,250,530	3,308,745	12,651,489	
1830	3,228,416	6,752,689	3,239,429	13,220,534	
1831	3,064,346	6,943,239	3,856,183	13,863,768	
1832	4,574,841	7,982,877	3,956,370	16,514,088	56,249,879
1833	5,051,789	13,096,152	3,901,357	22,049,298	
1834	4,399,779	10,064,428	3,956,260	18,420,467	
1835	3,720,167	9,420,313	3,864,939	17,005,419	
1836	5,388,371	18,466,110	5,800,763	29,655,244	87,130,428
1837	5,524,263	19,417,274	6,852,060	31,793,587	
1838	5,666,703	19,936,312	5,975,771	31,578,785	
1839	4,994,562	14,268,981	6,225,003	25,488,747	
1840	5,581,878	11,621,438	6,124,456	23,327,772	112,188,691
1841	6,490,881	13,704,882	6,001,077	26,196,840	
1842	6,775,625	9,188,469	8,397,243	24,361,337	
6 mo. of 1843	2,867,289	4,158,384	3,672,718	10,698,391	
*1844	5,231,747	8,231,317	6,496,991	19,960,055	81,216,623
*1845	5,608,207	9,533,203	6,228,639	21,370,049	
*1846	6,783,000	13,579,428	6,450,862	26,813,290	
*1847	6,715,854	41,281,606	7,931,633	59,451,177	

* For the year ending June 30.

Statement of the Debt of the United States, the Total Value of Imports and Exports, and the Total Tonnage, from 1791 to 1847.

Years.	Debt.	Imports.	Exports.	Tonnage.
	\$	\$	\$	\$
1791	75,463,476	52,200,000	19,012,041	502,146
1792	77,227,924	31,500,000	20,753,098	564,437
1793	80,352,634	31,100,000	26,109,572	491,780
1794	78,427,405	34,600,000	33,026,233	628,817
1795	80,747,587	69,756,268	47,989,472	747,964
1796	83,762,172	81,436,164	67,064,097	831,900
1797	82,064,479	75,379,406	56,850,206	876,913
1798	79,228,529	68,551,700	61,527,097	898,328
1799	78,408,670	79,068,148	78,665,522	946,408
1800	82,976,294	91,252,768	70,971,780	972,492
1801	83,038,051	111,363,511	94,115,925	1,033,219
1802	80,712,632	76,333,333	72,483,160	892,101
1803	77,054,686	64,666,666	55,800,033	949,147
1804	86,427,121	85,000,000	77,699,074	1,042,404
1805	82,312,150	120,000,000	95,566,021	1,140,369
1806	75,723,271	129,000,000	101,536,963	1,208,735
1807	69,218,399	138,500,000	108,343,150	1,268,548
1808	65,196,318	56,990,000	22,439,960	1,242,595
1809	57,023,192	59,400,000	52,205,231	1,350,281
1810	53,173,217	85,400,000	66,757,974	1,424,783
1811	48,005,588	53,400,000	61,316,831	1,232,502
1812	45,209,738	77,030,000	38,527,236	1,269,997
1813	55,962,828	22,005,000	27,855,997	1,666,628
1814	81,487,846	12,965,000	6,927,441	1,159,209
1815	99,833,660	113,041,274	52,557,753	1,368,127
1816	127,334,934	147,103,000	81,920,452	1,372,218
1817	123,491,965	99,250,000	87,671,569	1,399,911
1818	103,466,634	121,750,000	93,281,133	1,225,184
1819	95,529,648	87,125,000	70,142,521	1,260,751
1820	91,015,566	74,450,000	69,691,669	1,280,166
1821	89,987,428	62,585,724	64,974,382	1,298,958
1822	93,546,677	83,241,541	72,160,281	1,324,699
1823	90,875,877	77,579,267	74,699,030	1,336,565
1824	90,269,778	80,549,007	75,986,657	1,389,163
1825	83,788,433	96,340,075	99,535,388	1,423,112
1826	81,054,060	84,974,477	77,595,322	1,534,190
1827	73,987,357	79,484,068	82,324,827	1,620,608
1828	67,475,044	88,509,824	72,264,686	1,741,392
1829	58,421,414	74,492,527	72,358,671	1,260,978
1830	48,565,406	70,876,920	73,849,508	1,191,776
1831	39,123,192	103,191,134	81,310,583	1,267,846
1832	24,322,235	101,029,266	87,176,943	1,439,450
1833	7,001,699	108,118,311	90,140,433	1,601,150
1834	4,760,082	126,521,332	104,336,973	1,758,907
1835	37,733	149,895,742	121,693,577	1,824,940
1836	37,513	189,980,035	128,663,040	1,892,102
1837	1,878,224	140,989,217	117,419,376	1,896,685
1838	4,857,660	108,486,616	113,717,404	1,995,639
1839	11,983,738	121,028,416	162,092,132	2,096,478
1840	5,125,078	131,571,950	104,805,891	2,180,764
1841	6,737,398	127,946,177	121,851,803	2,130,744
1842	15,028,486	100,162,087	104,691,534	2,092,390
1843	26,898,953	64,753,799*	84,346,480*	2,158,602
1844	26,143,996	108,435,035†	111,200,046†	2,280,095
1845	16,801,647	117,254,564†	114,646,606†	2,417,002
1846	24,256,495	121,691,797†	113,488,516†	2,562,084
1847	45,659,659	146,545,638	158,648,622	2,839,046

* Only nine months of 1843.

† For the year ending June 30.

PUBLIC LANDS.—Sales during 1846, 2,263,730 acres, producing 2,904,637 dols.

1. Exhibit of the Quantities of Public Land (exclusive of the Sixteenth, or School Sections) in each State and Territory, advertised for Sale in the year 1847.

States and Territories.	Quantities advertised for sale in the year 1847.	Quantities, the plats of survey of which have been returned to the General Land Office.		Quantities prepared for market, and not yet advertised for sale.	Estimated quantities, the plats of survey of which are expected to be returned in the year 1848.
		Prior to the Commissioner's last annual report.	Since the Commissioner's last annual report.		
	Acres.	Acres.	Acres.	Acres.	Acres.
Ohio	Wyandot lands, the unsold improved.				
	721,272	281,524	440,818	1,070	
Indiana		1,789,484	734,107	2,523,591	450,000
Michigan		27,975		27,975	
Illinois	668,019		668,019		2,100,000
Wisconsin	2,549,582	335,037	2,986,387	771,842	2,230,000
Iowa	1,430,123	297,073	1,315,347	182,297	1,000,000
Missouri	2,516,150	1,496,330	1,359,098	339,278	1,200,000
Arkansas	257,137	1,089,794	98,974	931,631	325,000
Louisiana	12,891	3,082	9,809		
Mississippi		89,825		89,825	23,775
Alabama	983,357	592,592	647,994	257,229	1,975,000
Florida					
Total	9,138,531	6,002,716	8,260,553	5,124,738	9,324,477

COMPARATIVE VIEW OF THE FINANCES OF THE STATES.

Names.	Absolute Debt.	Contingent Debt.	Total Debt.	Annual Interest on Absolute Debt.	Amount of School Fund.	Other Productive Property.	Other Property not now productive.	Ordinary Annual Expenditure exclusive of Debts and Schools.
	\$	\$	\$	\$	\$	\$	\$	\$
Maine	1,008,200	..	1,008,200	66,000	350,000	598,265	..	125,000
New Hampshire ..	None.	..	None.	..	None.	None.	..	75,000
Vermont	None.	..	None.	..	None.	None.	..	90,000
Massachusetts ..	1,152,031	5,949,555	6,201,586	58,888	845,888	6,862,507	1,500	336,000
Rhode Island ..	41,000	192,719	233,719	2,400	433,635		..	45,000
Connecticut	None.	33,212	33,212	..	2,077,641	406,000	..	90,000
New York	22,879,390	1,567,190	24,446,580	1,262,561	6,450,342	30,987,336	..	820,000
New Jersey	37,000	..	37,000	2,200	370,742	226,253	764,671	100,000
Pennsylvania ..	40,578,949	..	40,578,949	2,002,240	..	30,721,376	520,000	350,000
Delaware	10,297,062	5,348,000	16,175,062	619,623	..	4,608,870	16,326,915	180,300
Maryland	7,880,302	1,432,876	9,313,178	462,229	1,472,971	6,644,041	4,396,381	530,000
Virginia	None.	977,000	977,000	..	..	..	..	..
North Carolina ..	3,622,039	..	3,622,039	217,322	..	4,971,255	..	215,287
South Carolina ..	1,879,875	200,000	1,779,875	94,792	263,000	..	..	113,986
Georgia	12,223,033	..	12,223,033	566,000	..	..	..	40,000
Florida	2,271,707	5,000,000	7,271,707	136,000	1,015,856	..	..	80,000
Alabama	1,380,566	14,857,565	16,238,131	78,914	..	..	2,000,000	207,000*
Mississippi	11,050,201	..	11,050,201	..	..	..	2,416,938	515,207
Louisiana	2,769,336	848,891	3,618,227	164,560	..	..	..	80,000
Texas	3,337,856	..	3,337,856	177,426	1,346,068	4,837,430	1,101,390	33,830
Arkansas	4,608,735	..	4,608,735	276,524	1,221,819	2,725,500	3,000,000	165,000
Tennessee	19,233,487	..	19,233,487	1,163,500	1,519,372	17,951,194	771,674	250,000
Kentucky	2,290,768	425,000	2,715,768	137,446	406,000	698,619	..	190,000
Ohio	6,231,778	..	6,231,778	224,228	2,195,149	..	..	95,000
Michigan	14,042,718	..	14,042,718	700,000	279,763	..	..	90,000
Indiana	684,997	..	684,997	73,100	..	..	..	125,000
Illinois	55,000	..	55,000	5,500	..	..	..	100,000
Missouri	None.	..	None.	..	..	..	..	14,700
Iowa .. ..	..	..	..	..	..	..	..	..
Wisconsin .. ..	..	..	..	..	..	..	..	..
Total	169,776,030	35,932,008	205,708,038	8,521,671	20,338,246	111,638,746	31,498,469	5,062,310
Total, near Jan. 1, 1847	165,129,900	51,781,654	216,911,554	9,072,939	17,631,553	108,643,384	30,660,945	5,435,265
Total " " 1846	179,635,022	44,388,805	224,023,827	9,930,052	16,608,719	110,396,552	23,232,715	5,455,186

* \$45,000 should be deducted on alternate years when the Legislature is not in Session.

ESTIMATED AMOUNT of GRAIN CROPS in each of the UNITED STATES in the Year 1847.

STATES.	GRAIN.					
	Wheat.	Barley.	Oats.	Rye.	Buckwheat.	Maize.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Maine	890,000	286,650	1,720,000	195,000	76,000	2,890,000
New Hampshire ..	610,000	129,150	2,100,000	460,000	169,000	2,280,000
Massachusetts ..	256,000	170,100	2,000,000	620,000	138,000	3,410,000
Rhode Island ..	4,500	54,000	210,000	50,000	4,500	800,000
Connecticut ..	664,000	28,000	1,810,000	1,500,000	480,000	3,180,000
Vermont	14,500,000	55,000	3,905,000	350,000	330,000	2,100,000
New York	1,100,000	3,931,000	26,200,000	3,650,000	3,660,000	16,000,000
New Jersey	14,150,000	10,000	5,228,000	3,050,000	980,000	8,000,000
Pennsylvania ..	410,000	150,000	18,835,000	12,000,000	3,600,000	20,200,000
Delaware	4,960,000	4,400	650,000	55,000	14,000	3,620,000
Maryland	12,000,000	2,900	1,860,000	975,000	115,000	8,300,000
Virginia	2,350,000	90,000	10,000,000	1,500,000	360,000	36,500,000
Carolina { North ..	1,300,000	4,000	3,507,000	235,000	18,000	25,000,000
South ..	1,950,000	4,500	1,000,000	54,000	..	12,600,000
Georgia	1,200,000	12,300	1,140,000	70,000	..	25,000,000
Alabama	1,200,000	7,500	1,831,000	75,000	..	26,000,000
Mississippi	500,000	2,000	1,378,000	23,000	..	16,000,000
Louisiana	8,750,000	6,500	9,918,000	2,200	9,000	74,000,000
Tennessee	6,000,000	18,000	14,100,000	390,000	28,000	62,000,000
Kentucky	16,800,000	240,000	26,500,000	1,000,000	1,200,000	66,000,000
Ohio	7,500,000	39,000	15,290,000	250,000	100,000	38,000,000
Indiana	4,000,000	116,000	4,200,000	155,000	120,000	33,000,000
Illinois	1,750,000	13,000	6,020,000	86,000	25,000	25,000,000
Missouri	200,000	1,000	440,000	10,000	..	7,000,000
Arkansas	8,000,000	210,000	5,500,000	90,000	290,000	6,500,000
Michigan .. ..	..	..	10,000	..	..	1,000,000
Florida	1,200,000	30,000	1,500,000	8,000	30,000	1,000,000
Wisconsin	1,000,000	35,000	1,000,000	12,000	20,000	2,900,000
Iowa	1,110,000	..	..	..	..	1,500,000
Texas .. ..	..	..	15,000	7,500	..	45,000
District of Columbia	50,000	..	..	..	..	525,000
Oregon .. ..	..	..	..	..	..	..
Total ..	114,245,500 13,834,416	5,649,950 684,173	167,867,000 20,327,644	29,222,700 3,338,686	11,673,500 1,413,588	539,350,000 65,311,914

ESTIMATED AMOUNT of AGRICULTURAL PRODUCE in each of the UNITED STATES in the Year 1847.

STATES.	Potatoes.	Hay.	Hemp.	Tobacco.	Cotton.	Silk Cocoons.	Sugar.
	Bushels.	Tons.	Tons.	lbs.	lbs.	lbs.	lbs.
Maine	7,800,000	1,113,000	..	..	..	550	500,000
New Hampshire ..	4,655,000	606,000	..	..	..	880	2,225,000
Massachusetts ..	4,308,000	682,000	..	135,000	..	40,000	530,000
Rhode Island ..	730,000	71,000	..	..	..	900	..
Connecticut ..	2,832,000	550,000	..	800,000	..	200,000	45,000
Vermont	7,086,000	1,250,000	..	..	..	8,000	10,500,000
New York	24,000,000	3,800,000	..	30,000	..	5,000	12,800,000
New Jersey	1,850,000	434,000	..	..	..	4,500	..
Pennsylvania ..	7,600,000	1,720,000	..	600,000	..	35,000	2,000,000
Delaware	160,000	20,000	..	..	..	3,600	..
Maryland	900,000	125,000	..	25,000,000	..	7,900	..
Virginia	2,950,000	400,000	..	50,000,000	2,500,000	6,350	1,750,000
Carolina { North ..	2,600,000	136,000	..	14,000,000	42,000,000	6,200	15,000
South ..	3,500,000	30,000	..	35,000	100,000,000	5,800	35,000
Georgia	1,840,000	24,000	..	205,000	210,000,000	6,000	370,000
Alabama	2,150,000	18,000	..	350,000	160,000,000	5,880	15,000
Mississippi	2,650,000	800	..	200,000	250,000,000	250	..
Louisiana	1,300,000	27,000	..	135,000	195,000,000	1,200	275,000,000
Tennessee	2,700,000	45,000	1,000	35,000,000	35,000,000	20,000	530,000
Kentucky	1,810,000	130,000	15,000	65,000,000	2,000,000	4,400	3,000,000
Ohio	4,644,000	1,400,000	600	9,000,000	..	35,000	5,000,000
Indiana	2,350,000	385,000	550	3,880,000	..	800	6,400,000
Illinois	2,100,000	365,600	600	1,288,000	..	3,200	615,000
Missouri	1,050,000	80,000	10,000	14,000,000	..	230	500,000
Arkansas	520,000	1,100	..	200,000	20,000,000	260	..
Michigan	4,980,000	260,000	..	..	..	1,500	3,260,000
Florida	350,000	1,200	..	300,000	15,000,000	500	300,000
Wisconsin	1,080,000	96,000	..	..	..	40	350,000
Iowa	850,000	40,000	..	..	..	..	175,000
Texas	200,000	..	..	..	10,000,000	..	20,000
District of Columbia	20,000	1,800	..	..	..	600	..
Oregon .. ..	..	..	..	..	..	..	..
Total ..	100,965,000	13,819,900	27,750	220,164,000	1,041,500,000	404,600	324,940,500

STAPLE PRODUCTS.—Agricultural productions form the staple wealth

TOTAL VALUE of the several PRODUCTS of LABOUR and CAPITAL in the UNITED STATES.

Products in the year 1847.	Value.	
	Dollars.	£.
Products of Agriculture.	838,163,928	174,617,485
„ Orchards	8,853,422	1,844,463
„ Gardens	45,000,000	9,375,000
„ Nurseries	724,111	150,857
Live Stock and its Products	252,240,779	52,550,162
Products of the Forest	59,099,628	12,307,423
„ the Fisheries	17,069,262	3,556,096
Profits of Capital employed in Commerce, Trade, and Internal Transport (390,972,423 dol.), at 6 per cent.	23,458,345	4,892,155
Products of Manufactures	550,000,000	114,583,333
„ Mines	74,170,500	15,452,188
Profits of Capital of Insurance Companies	20,000,000	4,166,667
„ Banks (208,216,000 dol.), and of all other sums lent at interest	25,000,000	5,208,333
„ Rents of Houses and Lands	50,000,000	10,416,666
„ Professions	50,000,000	10,416,666

COMMERCE: MARITIME AND INTERNAL.—In 1744, the annual value of the imports in the British North American Colonies (now the United States) was £640,114; in 1754, £1,246,615; in 1758, £1,832,948.

The contrast which the trade of the United States presents during the past century, compared with the annexed detail of the exports in 1847, is truly extraordinary:—

Value of the Exports of the Growth, Produce, and Manufacture of the United States, during the Year ending June 30th, 1847.

THE SEA.	£	AGRICULTURE (continued).	£	MANUFACTURES.	£
<i>Fisheries—</i>		<i>Products of Animals (continued)—</i>		Soap and tallow candles	606,798
Dried fish, or cod fisheries	659,629	Butter and cheese	1,741,770	Leather boots and shoes	243,816
Pickled fish, or river fisheries (herring, shad, salmon, mackerel)	136,221	Pork (pickled), bacon, lard, live hogs	6,630,842	Household furniture	225,700
Whale and other fish oil	1,070,659	Horses and mules	277,359	Coaches and other carriages	75,369
Spermaceti oil	738,456	Sheep	29,100	Hats	59,536
Whalebone	671,601	<i>Vegetable Food—</i>		Saddlery	13,102
Spermaceti candles	191,467	Wheat	6,049,350	Wax	161,527
<i>THE FOREST.</i>		Flour	26,133,811	Spirits from grain	67,781
Skins and furs	747,145	Indian Corn	14,395,212	Beer, ale, porter, and cider	68,114
Ginseng	64,466	Indian meal	4,391,334	Saufl and tobacco	689,950
<i>Products of Wood—</i>		Rye meal	225,502	Lined oil and spirits of tur- pentine	498,110
Staves, shingles, boards, hewn timber	1,849,011	Rye, oats, and other small grain and pulse	1,600,062	Cordage	27,054
Other lumber	342,781	Biscuit, or ship-bread	556,266	<i>Iron—</i>	
Masts and spars	23,279	Potatoes	109,062	Pig, bar, and nails	168,917
Oak bark and other dye	95,355	Apples	92,961	Castings	68,889
All manufactures of wood	1,495,924	Rice	3,605,896	All manufactures of	929,778
Naval stores, tar, pitch, rosin, and turpentine	759,221	Tobacco	7,242,086	Spirits from molasses	293,609
Ashes, pot and pearl	618,000	Cotton	53,415,848	Sugar, refined	124,824
<i>AGRICULTURE.</i>		Wool	89,460	Chocolate	1,653
<i>Products of Animals—</i>		<i>All other Agricultural Products—</i>		Gunpowder	88,397
Beef, tallow, hides, horned cattle	2,434,603	Flax-seed	1,346	Copper and brass	64,980
		Hops	150,654	Medicinal drugs	165,793
		Brown sugar	25,483	<i>Cotton Piece Goods—</i>	
		Indigo	10	Printed and coloured	281,320
				White	3,345,902

MANUFACTURES (continued). \$		MANUFACTURES (continued). \$		MANUFACTURES (continued). \$	
Cotton Piece Goods (continued)—		Fire-engines and apparatus ..		Gold and silver coin ..	
Nanken	8,794	Printing-presses and type ..	17,431	Artificial flowers and jewelry ..	3,126
Twist, yarn, and thread ..	108,132	Musical instruments ..	16,997	Molasses	26,959
All other manufactures of ..	338,753	Books and maps	44,751	Trunks	5,270
Flax and hemp, bags and all		Paper and stationery ..	88,731	Brick and lime	17,683
manufactures of	5,305	Paints and varnish	54,115	Domestic salt	42,333
Ditto, cloth and thread ..	477	Vinegar	9,526	Lead	124,981
Wearing apparel	47,101	Earthen and stone ware ..	4,758	Articles not enumerated—	
Combs and buttons	17,036	Manufactures of—		Manufactured	1,108,984
Brushes	2,907	Glass	71,155	Other articles	1,199,276
Billiard-tables and apparatus	615	Tin	6,353	Government stores to the army,	
Umbrellas and parasols ..	2,150	Pewter and lead	13,694	from New York	326,800
Leather and Morocco skins not		Marble and stone	11,230		
sold per pound	29,855	Gold and silver, and gold leaf	4,268	Total	150,637,464

IMPORTS FROM and EXPORTS TO FOREIGN COUNTRIES, during the Year ending June 30, 1847.

Countries.		Value of Exports.			Countries.		Value of Exports.		
		Value of Imports.	Domestic Produce.	Foreign Produce.			Value of Imports.	Domestic Produce.	Foreign Produce.
		\$	\$	\$			\$	\$	\$
Russia	924,673	626,332	124,118	750,450	Teneriffe and the				
Prussia	7,008	182,259	19,907	202,166	other Canaries ..	61,864	15,148	..	15,148
Sweden & Norway	013,696	391,847	28,340	420,187	Manilla and Phil-				
Swedish W. Indies		110,062	3,569	113,721	ippine Isles ..	494,056	32,480	44,760	77,240
Denmark	475	198,052	4,943	203,895	Cuba	12,394,867	6,005,617	973,089	6,977,706
Danish W. Indies	846,748	836,672	152,631	989,303	Porto Rico ..	2,141,929	835,079	33,985	859,064
Holland	1,247,209	1,885,398	129,936	2,015,334	Portugal	283,330	56,893	1,393	58,228
Dutch East Indies	894,982	91,962	108,238	200,140	Madeira	95,857	105,031	1,389	106,420
Dutch West Indies	279,698	217,214	16,355	233,569	Fayal and the				
Dutch Guiana ..	59,355	44,840	388	44,228	Azores	34,564	9,466	525	9,991
Belgium	948,325	2,874,367	348,190	3,222,557	Cape de Verd Is-				
Hanse Towns ..	3,622,185	4,608,413	266,225	4,334,638	lands	2,399	71,084	17,848	88,932
Hanover		6,469	..	6,469	Italy	1,279,936	1,056,022	99,333	1,149,355
England	65,170,374	70,223,777	634,921	71,058,698	Sicily	550,988	56,999	7,218	64,117
Scotland	1,837,014	3,645,466	162,013	3,807,473	Sardinia	287	630,322	16,870	647,102
Ireland	590,240	12,397,998	31,486	12,429,186	Austrian and				
Gibraltar	26,969	365,360	55,026	420,386	Port	187,341	1,175,375	73,348	1,248,723
Malta		25,096	22,541	47,637	Turkey	577,710	61,570	56,672	127,242
British East Indies	1,646,457	237,783	135,454	373,237	Mexico	746,818	536,641	155,787	692,428
Mauritius		36,275	1,233	37,508	Central America ..	80,581	73,322	23,246	96,568
Cape of Good Hope	36,041	106,172	..	106,172	New Granada ..	156,054	53,655	19,405	73,060
British W. Indies	947,932	3,973,252	20,140	3,993,392	Venezuela	1,322,490	571,474	43,739	615,213
British Guiana ..	19,125	621,903	1,816	623,719	Brazil	7,066,160	2,569,038	376,840	2,945,778
British Honduras	107,232	261,398	40,519	301,917	Argentine Repub.	241,209	123,954	52,135	176,089
British Amer. Colon.	2,343,927	5,819,667	2,165,876	7,985,543	Cisplatine Repub.	112,810	186,536	56,303	236,839
Australian Colon.		33,289	..	33,289	Chili	1,716,903	1,461,347	210,263	1,671,610
France on the					Peru	366,223	192,978	34,559	227,537
Atlantic	23,899,076	17,420,385	449,046	17,869,431	Repub. of Ecuador		27,253	571	27,824
France on the					China	5,583,343	1,708,655	124,229	1,832,884
Mediterranean	1,001,765	1,172,146	56,041	1,228,187	Hayi	1,391,580	1,187,017	111,766	1,298,773
French African					South America ge-				
Ports		5,491	..	5,491	nerally	10,500	44,427	6,213	50,640
French W. Indies	151,366	569,126	34,038	603,164	Asia generally ..	308,481	161,679	105,565	267,244
French Guiana ..	47,775	58,287	1,990	60,277	Africa generally ..	559,842	700,431	44,499	744,390
Miquelon &					W. Indies generally		118,137	1,539	119,670
French Fisheries	435				Pacific ocean ..	44,588	310,187	49,887	360,074
Bourbon		52,557	..	52,557	Sandwich Islands	21,039			
Spain on the					Total	146,545,638	150,637,464	8,011,158	158,648,622
Atlantic	274,708	770,748	10,115	780,863					
Spain on the									
Mediterranean	1,016,551	1,188,340	41,063	1,229,403					

In 1766, Dr. Franklin, in his examination before the House of Commons, stated that the value of imports at that time into Pennsylvania was computed to be above £500,000.

The manufacturing activity in the United States may be illustrated by the facts contained in the census of Massachusetts in 1840, thus :—The whole number of rateable (taxable) male polls of sixteen years and upwards, is 172,227; male polls, not paupers, and not taxed, 12,065; paupers, 1,707; the whole number of dwelling-houses is 96,559; shops and stores, 23,010; barns, 63,806; other buildings, worth twenty dollars and upwards, 26,573.

TONNAGE of VESSELS engaged in FOREIGN TRADE, during the Year ending June 30th, 1847.

Countries.	American Tonnage		Foreign Tonnage		Countries.	American Tonnage		Foreign Tonnage	
	Entered.	Cleared.	Entered.	Cleared.		Entered.	Cleared.	Entered.	Cleared.
Russia	6,801	4,135	..	1,302	Manilla and Philippine Islands	5,856	3,189	..	..
Prussia	152	..	523	5,127	Cuba	233,258	243,515	10,756	18,493
Sweden and Norway	1,068	..	13,121	6,263	Porto Rico	38,063	26,767	1,746	1,879
Swedish West Indies .. ..	..	1,607	..	..	Portugal	4,182	2,537	1,293	1,883
Denmark	23,898	22,156	717	2,274	Madagascar	1,341	3,549	1,248	1,046
Danish West Indies	18,562	17,744	2,900	4,315	Fayal and the Azores	1,559	1,108	380	..
Holland	6,583	5,370	17,293	17,143	Cape de Verd Islands	107	1,798	..	240
Dutch East Indies	14,586	4,370	113	113	Sicily	28,911	1,423	1,466	649
Dutch West Indies	4,180	4,381	..	..	Tuscany	5,415	1,956	500	375
Dutch Guiana	28,367	20,617	20,173	18,752	Sardinia	1,908	10,235	1,472	3,313
Belgium	27,361	12,127	83,105	56,634	Trieste and other Austrian Ports	3,930	7,861	1,204	5,279
Hanse Towns .. ..	..	..	..	246	Turkey	4,672	1,118	342	..
Hanover	426,591	457,598	325,831	300,555	Mexico	6,497	10,716	2,903	2,165
England	20,411	25,315	43,156	15,630	Central America	1,822	1,345	..	..
Scotland	40,366	124,600	76,903	101,067	New Grenada	822	565	1,708	734
Ireland	2,851	8,219	1,015	1,713	Venezuela	13,185	10,800	728	930
Gibraltar	221	843	..	223	Brazil	55,616	39,281	10,233	3,367
Malta	10,083	12,294	..	615	Argentine Republic .. ..	..	693	2,237	..
British East Indies .. ..	..	1,690	..	307	Cisplatine Republic	3,259	3,536	1,119	786
Mauritius	675	2,287	..	..	Chili	7,208	7,185	1,300	1,677
Cape of Good Hope	76,981	91,000	36,792	21,172	Peru	919	1,208	..	562
British West Indies	4,675	13,492	4,484	1,853	Republic of Ecuador .. ..	..	..	..	168
British Guiana	5,736	5,946	786	507	China	16,601	12,334	1,174	..
British Honduras	670,015	657,595	500,941	525,515	Haiti	27,717	27,959	1,068	2,500
British American Colonies .. ..	..	725	..	..	South America generally	275	186	275	..
Other British Colonies (Australia)	126,422	147,579	27,941	18,496	Europe generally .. ..	..	326	..	..
France on the Atlantic	13,250	13,078	1,594	4,611	Asia generally	1,081	448	..	..
France on the Mediterranean	15,571	22,715	6,871	2,527	Africa generally	11,044	8,851	1,203	2,719
French West Indies	1,494	1,808	..	..	West Indies generally .. ..	..	9,971	..	..
French Guiana .. ..	..	2,001	..	743	Liberia	428	180	..	..
Miquelon and French Fisheries .. ..	..	1,005	..	487	Pacific Ocean (whaling)	39,042	33,068	..	..
Bourbon	16,372	9,588	2,819	1,174	Atlantic Ocean (whaling)	3,546	5,175	..	..
Spain on the Atlantic	12,460	7,266	11,260	16,326	Indian Ocean (whaling)	3,015	11,385	..	..
Spain on the Mediterranean .. ..	..	..	..	..	Sandwich Islands	760	1,978	..	..
Teneriffe and the other Canaries	2,445	856	..	..	North-west coast .. ..	..	2,284	..	..
					Total	2,101,359	2,202,393	1,220,346	1,176,605

Whole number of American vessels entered during the Year ending June 30, 1847 7,730

Whole number of foreign vessels entered 6,499

Total of American and foreign vessels 14,229

Whole number of American vessels cleared 8,102

Whole number of foreign vessels cleared 6,268

Total of American and foreign vessels 14,370

Crews of American vessels entered. Men, 96,860. Boys, 2,665. Total, 99,525.

Crews of foreign vessels entered. Men, 63,609. Boys, 755. Total, 64,364.

Crews of American vessels cleared. Men, 101,266. Boys, 2,529. Total, 103,795.

Crews of foreign vessels cleared. Men, 61,288. Boys, 709. Total, 61,997.

A few years since the following statement was made of the Cotton Goods printed in the United States per annum :—

States.	Factories.	Yards per annum.	Average value.	Total value.
			Cents.	\$
New Hampshire	2	5,546,667	13	721,066
Massachusetts	10	38,162,667	..	4,811,146
Rhode Island	9	26,624,000	..	3,461,220
Connecticut (none.)	..	..	..	..
New York	7	12,202,667	9	1,098,240
New Jersey	2	6,101,334	..	549,120
Pennsylvania	4	8,874,667	..	798,720
Maryland	2	2,600,000	8	208,000
	36	100,112,002	..	11,647,512

STATISTICS OF

VESSELS BUILT, and the Tonnage thereof, in the UNITED STATES, from 1815 to 1847, inclusive.

Years.	Class of Vessel.					Total Number of Vessels built.	Total Tonnage.	
	Ships.	Brigs.	Schooners.	Sloops and Canal-boats.	Steamers.		Tons.	95ths.
1815	136	224	680	274	..	1,314	154,624	39
1816	76	122	781	424	..	1,403	131,668	04
1817	34	86	559	394	..	1,073	86,393	37
1818	53	85	428	332	..	898	82,421	20
1819	53	82	473	242	..	850	79,817	86
1820	21	60	301	152	..	534	47,784	01
1821	43	89	248	127	..	507	55,856	01
1822	64	131	260	168	..	623	75,346	93
1823	55	127	260	165	15	622	75,007	57
1824	56	156	377	166	26	781	90,939	00
1825	56	197	538	168	35	994	114,997	25
1826	71	187	482	227	45	1,012	126,438	35
1827	58	133	464	241	38	934	104,342	67
1828	73	108	474	196	33	884	98,375	58
1829	44	68	485	145	43	785	77,098	65
1830	25	56	403	116	37	637	58,094	24
1831	72	95	416	94	34	711	85,962	68
1832	132	143	568	122	100	1,065	144,539	16
1833	144	169	625	185	65	1,188	161,626	36
1834	98	94	497	180	68	937	118,330	37
1835	25	50	302	100	30	507	*46,238	52
1836	93	65	444	164	124	890	113,627	49
1837	67	72	507	168	135	949	122,987	22
1838	66	79	510	153	90	898	113,135	44
1839	82	89	439	122	125	658	120,988	34
1840	97	109	378	224	64	872	118,309	23
1841	114	101	312	157	78	762	118,893	71
1842	116	91	273	404	137	1,021	129,083	64
1843	58	34	138	173	79	482	*63,617	77
1844	73	47	204	279	163	766	103,537	29
1845	124	87	322	342	163	1,038	146,018	02
1846	100	164	576	355	225	1,420	188,202	93
1847	151	168	689	392	198	1,598	243,732	67

* For nine months.

IMPORTS and EXPORTS of EACH STATE, during the Year ending June 30, 1847.

States.	Value of Exports.			Value of Imports.		
	Domestic Produce.	Foreign Produce.	Total.	In American Vessels.	In Foreign Vessels.	Total.
Maine	\$1,614,071	\$20,132	\$1,634,203	\$445,745	\$128,311	\$574,056
New Hampshire	1,407	283	1,690	13,150	3,785	16,935
Vermont	231,985	282,313	514,298	239,641	..	239,641
Massachusetts	9,262,777	1,985,685	11,248,462	18,169,238	6,287,770	34,477,008
Rhode Island	191,434	935	192,369	301,075	4,414	305,489
Connecticut	508,792	490	509,282	271,870	3,953	275,823
New York	41,816,486	5,027,888	46,844,374	71,084,398	13,082,984	84,167,382
New Jersey	18,428	700	19,128	4,066	771	4,837
Pennsylvania	8,263,311	281,080	8,544,391	8,843,773	743,743	9,587,516
Delaware	235,459	..	235,459	12,452	270	12,722
Maryland	9,632,960	129,884	9,762,844	3,928,643	503,671	4,432,314
District of Columbia	124,269	..	124,269	35,049	..	35,049
Virginia	5,645,686	12,706	5,658,374	333,061	53,036	386,127
North Carolina	284,919	..	284,919	136,483	5,901	142,384
South Carolina	10,428,146	3,371	10,431,517	1,201,911	378,747	1,580,658
Georgia	5,712,149	..	5,712,149	147,514	69,666	207,180
Florida	1,868,177	2,361	1,870,538	103,180	40,118	143,298
Alabama	9,054,530	..	9,054,580	80,492	309,669	390,161
Louisiana	41,788,303	263,330	42,051,633	7,437,995	1,784,974	9,222,969
Mississippi .. ..	..	..	..	81	285	386
Tennessee .. ..	..	..	..	1,250	..	1,256
Missouri .. ..	..	..	..	167,195	..	167,195
Ohio	778,944	..	778,944	88,381	2,300	90,681
Kentucky .. ..	..	..	..	26,956	..	26,956
Michigan	93,795	..	93,795	37,369	234	37,603
Illinois	52,100	..	52,100	..	..	..
Texas .. ..	..	..	..	20,087	9,739	29,826
Total	150,637,464	8,011,158	158,648,622	113,141,357	3,404,281	146,545,638

THE UNITED STATES.

781

COMPARATIVE VIEW of the TONNAGE of the UNITED STATES, from 1815 to 1847 inclusive, in Tons.

Years.	Registered Tonnage.	Enrolled and Licensed Tonnage.	Registered Tonnage in Whale Fishery.	Enrolled and Licensed Tonnage employed in the			
				Coasting Trade.	Cod Fishery.	Maclercel Fishery.	Whale Fishery.
1815	854,294	513,833	..	435,066	26,570	..	1,229
1816	800,759	571,448	..	479,979	37,879	..	1,168
1817	809,724	590,186	4,874	181,457	33,990	..	349
1818	605,088	519,095	16,314	503,140	38,551	..	614
1819	812,630	647,821	31,700	533,556	65,044	..	686
1820	619,047	661,118	35,391	539,080	60,842	..	1,053
1821	619,896	679,092	26,070	559,435	51,351	..	1,924
1822	628,150	696,548	45,449	573,080	58,405	..	3,133
1823	639,930	699,644	39,918	566,408	67,620	..	585
1824	669,972	719,190	33,165	589,223	66,419	..	180
1825	709,787	729,323	35,379	587,273	70,626	..	..
1826	737,978	798,211	41,757	666,420	63,761	..	226
1827	747,170	873,437	45,653	732,937	74,048	..	338
1828	812,619	928,772	54,621	758,922	74,945	..	180
1829	650,142	610,654	57,284	508,858	101,790	..	792
1830	576,575	615,311	38,911	516,978	65,554	35,973	421
1831	620,451	647,394	82,315	539,723	60,977	46,210	689
1832	686,990	752,460	72,868	649,627	54,027	47,427	377
1833	750,126	856,123	101,158	744,198	62,720	48,725	478
1834	857,438	901,468	108,060	783,618	56,403	61,082	364
1835	885,821	930,118	97,640	792,301	72,374	64,443	..
1836	897,774	984,328	144,690	873,023	63,307	46,424	1,573
1837	810,447	1,086,288	127,341	656,980	90,551	46,810	1,894
1838	822,591	1,173,047	110,629	1,041,105	70,064	56,640	5,229
1839	834,244	1,262,234	131,845	1,153,551	72,258	35,983	439
1840	899,765	1,280,999	136,926	1,176,694	76,035	28,269	..
1841	945,803	1,184,940	157,405	1,107,067	66,551	11,321	..
1842	975,358	1,117,031	151,612	1,045,753	64,804	10,690	377
1843	1,009,305	1,149,297	152,374	1,070,155	61,224	11,775	..
1844	1,068,764	1,211,330	168,293	1,109,614	85,234	16,170	320
1845	1,095,172	1,321,829	190,695	1,190,898	69,825	21,413	206
1846	1,130,286	1,431,798	186,980	1,289,870	72,516	36,463	439
1847	1,241,312	1,597,732	193,858	1,452,623	70,177	31,451	..

QUANTITIES and VALUE of TEA consumed in the UNITED STATES, in each Year from 1821 to 1847.

Years.	Quantities.	Value.	Years.	Quantities.	Value.	Years.	Quantities.	Value.
	lbs.	£		lbs.	£		lbs.	£
1821*	4,566,223	1,089,264	1830	6,873,091	1,532,211	1839	7,748,028	1,781,824
1822	5,305,588	1,060,570	1831	4,654,681	1,057,528	1840	16,860,784	4,059,545
1823	6,474,934	1,547,695	1832	8,627,144	2,081,339	1841	10,772,087	3,075,332
1824	7,771,619	2,224,203	1833	12,927,643	4,775,081	1842	13,492,645	3,567,745
1825	7,173,740	2,246,794	1834	13,193,553	5,122,275	1843†	12,785,748	3,405,627
1826	8,482,483	2,443,587	1835	12,331,636	3,594,293	1844	13,054,327	3,152,225
1827	3,070,885	942,439	1836	14,484,784	4,472,342	1845	17,162,550	4,809,621
1828	6,289,581	1,771,993	1837	14,465,722	5,003,401	1846	16,891,020	3,983,337
1829	5,602,795	1,531,460	1838	11,978,744	2,559,246	1847	14,221,910	3,200,056

* 1821 to 1842, ending 30th September.

† 1843 (Nine Months) to 1847, ending 30th June.

QUANTITIES of SUGAR imported for Consumption into the UNITED STATES, in each Year from 1820 to 1846.

Years.	Brown.	Clayed.	Total.	Years.	Brown.	Clayed.	Total.
	lbs.	lbs.	lbs.		lbs.	lbs.	lbs.
1820	48,617,029	2,920,859	51,537,888	1834	96,447,915	4,977,412	101,425,327
1821	40,631,396	2,453,423	43,084,819	1835	108,020,863	10,781,597	118,802,460
1822	70,332,928	6,619,910	76,952,838	1836	150,813,701	6,400,291	157,213,992
1823	42,137,421	1,172,054	43,309,475	1837	92,540,615	2,547,171	95,087,786
1824	75,077,321	5,408,837	80,486,158	1838	124,697,931	7,556,988	132,254,919
1825	44,230,180	3,264,653	47,494,833	1839	176,352,785	5,860,027	182,212,812
1826	69,112,185	4,339,414	73,451,599	1840	98,164,329	3,902,912	102,067,241
1827	52,309,013	2,814,302	55,123,315	1841	163,907,516	8,477,913	172,385,429
1828	44,959,621	4,118,185	49,077,806	1842	150,098,832	10,202,894	160,301,726
1829	47,832,037	3,232,470	51,064,507	1843	67,997,855	805,225	68,803,080
1830	69,507,714	6,370,644	75,878,358	1844	178,300,526	3,483,859	181,784,385
1831	65,304,411	4,654,276	69,958,687	1845	100,758,315	902,945	101,661,250
1832	46,194,798	2,271,040	48,465,838	1846	107,384,247	731,489	108,115,736
1833	90,083,811	9,130,543	99,814,354				

QUANTITIES of COFFEE consumed in the UNITED STATES, in each Year from 1822 to 1846.

Years.	Quantities.	Years.	Quantities.	Years.	Quantities.	Years.	Quantities.	Years.	Quantities.
	lbs.		lbs.		lbs.		lbs.		lbs.
1822	14,332,982	1827	31,895,217	1832	46,662,575	1837	76,044,071	1842	167,333,567
1823	13,603,330	1828	37,253,379	1833	75,057,996	1838	82,872,633	1843	85,916,666
1824	20,368,450	1829	35,735,610	1834	44,346,505	1839	99,872,517	1844	149,711,820
1825	22,357,751	1830	37,121,910	1835	91,753,002	1840	86,297,761	1845	94,358,939
1826	26,440,356	1831	79,915,312	1836	77,637,300	1841	109,200,247	1846	124,336,054

QUANTITIES of FOREIGN COAL imported into the UNITED STATES, in each Year from 1825 to 1846.

Years.	Quantities.	Years.	Quantities.	Years.	Quantities.	Years.	Quantities.	Years.	Quantities.
	Tons.		Tons.		Tons.		Tons.		Tons.
1825	25,645	1830	58,135	1835	49,969	1839	181,551	1843	41,163
1826	35,065	1831	96,509	1836	108,433	1840	162,867	1844	87,073
1827	40,257	1832	72,978	1837	153,450	1841	155,394	1845	85,771
1828	32,302	1833	92,432	1838	129,083	1842	141,526	1846	156,853*
1829	45,993	1834	71,625						

* From England 57,903 tons; British North American Colonies 95,380 tons; other Places 3,630 tons.

The internal trade of the United States, carried on by extensive rivers, lakes, and canals, indicates the wonderful energy of the people. The Commerce of the Lakes and Western Rivers is derived from a report to Congress of J. J. Abert, Col Corps Top. Engineers, January 12, 1848.

1. Commerce of the Lakes.

By a report from the Bureau of Topographical Engineers, in November, 1843, it appeared that, in 1841, the monied value of the Lake commerce was,—

Of exports	..	...	...	...	...	...	\$32,342,541
Of imports	...	...	...	...	...	...	33,483,441
Floating value of Lake commerce in 1841	...	...	...	...	...	...	\$65,825,982

The enrolled and licensed Lake tonnage for the year 1841 was 56,252 tons, and the number of mariners then employed, 3,750.

In 1846 the monied value of the commerce of some of the Lake harbours—that of the others being unknown—was as follows, to wit:—

Oswegatchie (district)	\$180,555	Big Sodus ...	\$39,206	Monroe (district) in-	
Lake Champlain:—		Rochester ...	212,926	cluding Toledo ...	\$9,519,067
Whitehall ...	6,327,489	Pultneyville ...	20,432	Detroit ...	8,706,348
Plattsburg (district)	1,160,844	Niagara (district) ...	606,863	Erie... ..	6,373,246
Burlington (district)	3,777,726	Lake Erie:—		Black River (port)...	215,040
Lake Ontario:—		Buffalo (port) ...	48,989,116	Vermilion (port) ...	137,770
Sacket's Harbour (dist.)	2,735,091	Conneaut (port) ...	380,475	Lake Michigan:—	
Dexter (port) ...	484,575	Ashtabula (port) ...	715,467	Chicago ...	3,927,150
Salmon River or Port		Fairport (Grand River)	819,585	Total ...	\$123,829,821
Ontario ...	423,724	Cleveland (port) ...	12,559,110		
Oswego ...	9,502,980	Sandusky (district)	5,943,127		

The above table gives the consolidated returns of both exports and imports. It is supposed that half the amount would not be an exaggerated statement of

the net monied value of the Lake commerce. The amount for 1846 would then be 61,914,910 dols.; and for 1841 by the same computation, 32,912,991 dols. This shows an annual average increase of 17·62 per cent., and that the Lake commerce has nearly doubled itself in five years.

The registered, enrolled, and licensed tonnage of the Lakes, by the official reports of the Treasury Department, was, for the year 1846, 106,836 tons; showing that in five years the tonnage of the Lakes was nearly doubled, and that during that period the annual average increase was 17·98 per cent.

The number of clearances and entries at ports on the Lakes in 1846 was 15,845, and the quantity of imports and exports was 3,861,088 tons. In 1841 the imports and exports amounted to 2,071,802 tons. This shows an annual average increase of 17·27 per cent., and also that the amount was nearly doubled in five years.

There were 3,861,088 tons of merchandise carried on the Lakes in 1846; and the American Lake tonnage, during the same year, was 106,836 tons. About 30,000 tons of British tonnage are supposed to be actively employed in the trade. There are, then, 136,836 tons of shipping employed in the transportation of 3,861,088 tons of merchandise, which will require each ton to make 28·21 trips the season. The total tonnage of the Lakes is estimated to be worth 6,000,000 dols.; and the annual expenses for wages, wood, coal, repairs, &c. (exclusive of interest and insurance), are computed to amount to 1,750,000 dols.

The number of passengers on the Lakes, "in all directions," for the year 1846, is estimated to be not less than 250,000, and the average charge upon each passenger to be 5·00 dols.; giving, for the value of the passenger trade of the Lakes, 1,250,000 dols. The number of mariners upon the Lakes in 1846 was, by returns of the Treasury Department, 6,972.

2. *Commerce of the Western Rivers.*

From official returns of the Treasury Department it appears that the steamboat tonnage of the Western rivers in 1842, was 126,278 tons, and in 1846, was 249,055 tons. The value of this commerce in 1842 may be stated at 50,566,903 dols. In 1846 the official return is 62,206,719 dols.; showing an increase in four years of 11,639,816 dols., or an annual average increase of 15 $\frac{3}{4}$ per cent. This is the direct river commerce.

The value of the "way commerce" was stated by the Cincinnati memorial to be, in 1842, 70,000,000 dols.; which in 1846, at an increase of 5 $\frac{3}{4}$ per cent. per annum, would be 86,100,000 dols. The passenger trade of these rivers in 1846 is estimated at 3,191,982 dols. The total commerce, of all kinds, of the Western rivers may, then, be stated at (net value) 151,498,701 dols.

The total cost of all the river tonnage, including flat boats, &c., in 1842, was 10,522,240 dols. In 1846, at $5\frac{3}{4}$ per cent. increase, it would have been 12,942,355 dols. The yearly expense of sustaining this tonnage in 1842 is stated to be 15,039,709 dols. for steam, and 1,380,000 dols. for all other tonnage, making a total of 16,419,709 dols. This, at an annual increase of $5\frac{3}{4}$ per cent., would give 20,196,242 dols. for the cost in 1846. In 1842 there were 20,418 persons employed on these boats, and in 1846, at the same rate of increase, there would be 25,114.

Colonel Abert considers the value of the trade of the Western rivers, as above stated, for 1846, too small; as the annual rate of increase is larger than $5\frac{3}{4}$ per cent. He makes two other estimates; one of which gives the value for 1846, 190,524,988 dols., and the other, 176,694,463 dols. The mean of these two estimates, 183,609,725 dols., he assumes as the net value of the commerce of the Western rivers, *i.e.* the Mississippi and its direct and indirect tributaries, for the year 1846. The population depending upon these rivers, as a means of communication with a market, was in 1846 between six and seven millions, and that depending upon the Lakes in the same year was nearly three millions.

3. *Probable extent of Steam Navigation on the Western Waters, including the Rivers, Bayous, &c., connected with the Mississippi by Channels navigable for Steamers.*

[This table is furnished by S. H. Long, Lieut.-Col. Corps Top. Engineers.]

Mississippi and its Branches, Bayous, &c.

	Miles.		Miles.		Miles.
Mississippi Proper	2,000	Big Muddy	5	Yalabusha	130
St. Croix	80	Obion	60	Big Sunflower	80
St. Peter's	120	Forked Deer	195	Little Sunflower	70
Chippeway	70	Big Hatchee	75	Big Black	150
Black	60	St. Francis	300	Bayou De Glaze	90
Wisconsin	180	White	500	Bayou Care	140
Rock	250	Big Black	60	Bayou Rouge	40
Iowa	110	Spring	50	Bayou La Fourche	60
Cedar	60	Arkansas	600	Bayou Plaquemine	12
Des Moines	250	Canadian	60	Bayou Teche	96
Illinois	245	Neosho	60	Grand River	12
Mareme	60	Yazoo	300	Bayou Sorrele	12
Kaskaskia	150	Tallahatchie	300	Bayou Chien	5

Missouri and Branches.

	Miles.		Miles.		Miles.
Missouri Proper	1,800	Platte River	40	Osage	275
Yellowstone	300	Kansas	150	Grand	90

Ohio and Branches.

	Miles.		Miles.		Miles.
Ohio Proper	1,000	Big Sandy	50	Barren	30
Alleghany	200	Scioto	50	Wabash	400
Monongahela	60	Kentucky	62	Cumberland	400
Muskingum	70	Salt River	35	Tennessee	729
Kanawha	65	Green	150		

THE END.



